



# Site Description

The site is located at 300 Taylor Street in Dayton, Ohio. The current-day site comprises approximately 22 acres. The site is bordered by vacant parking lots to the south, the Mad River to the north, Keowee Street and the City of Dayton Water Plant to the east, and Webster Street and a vacant parking lot to the west.



# Site History

- 1919 Acquired by GM in the purchase of Domestic Engineering Company.
- 1919 to 1928 Delco Light Company.
- 1928 to 1936 Frigidaire Corporation.
- 1936 to 1975 Frigidaire Division of General Motors Corporation (GM).
- 1975 to 1981 Delco Air Division of GM
- 1981 to 1996 Harrison Radiator Division of GM (Delphi Harrison Thermal Systems).
- 1996 to Present GM sold the site to The Peerless Transportation Company.



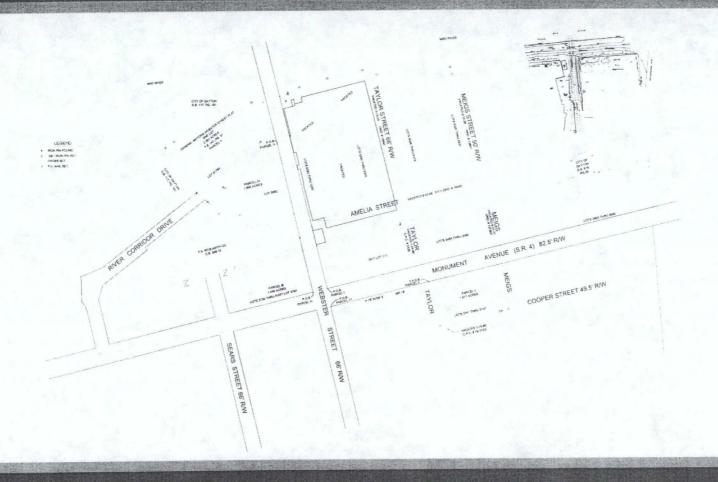
# Site History, (cont'd)

Past operations included the manufacturing of electric refrigerators, other household appliances, .50-caliber machine guns during World War II, and manufacture and assemble of automotive air compressors. Over the years, various processes conducted at this site included metal machining, metal heat treatment, metal coating, electroplating, component painting, assembly, and packaging.

Current operations are for leasing and storage for various industries.



# SITE MAP





# Affected Area

# Identification of PCBs

As part of the ongoing BUSTR UST removals, free product (LNAPL) was identified. Monitoring wells were installed to determine the extent of the LNAPL. Characterization samples of the product were collected for disposal. The presence of PCBs was identified.



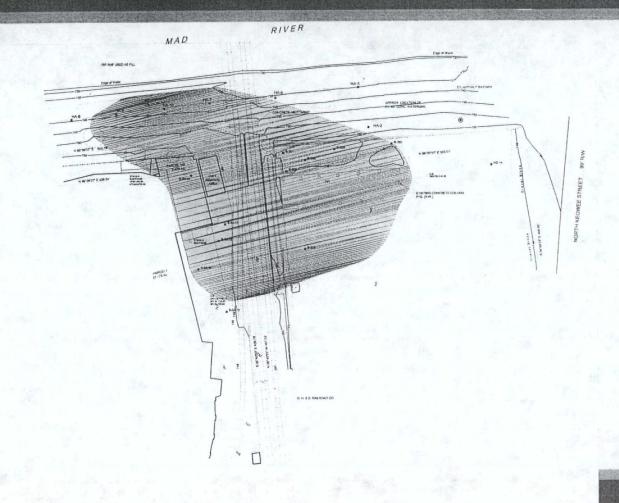
# Affected Area, (cont'd)

# Delineation

Installed soil borings and sampled existing monitoring wells on the site and also on Miami Conservancy District (MCD) property (soil borings only) which confirmed presence of oil contaminated with PCBs at water table interface. Concentrations of detected PCBs in free product ranged from 174 mg/kg up to 1330 mg/kg. PCBs in soils ranged from non-detect up to 3250 mg/kg



# -Free Product Plume Map





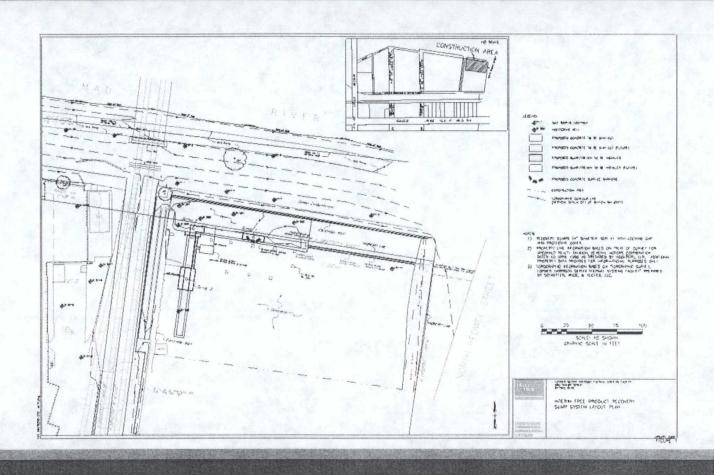
# Affected Area, (cont'd.)

# Interim Measure

- Determined exact location of 48" high pressure water line.
- Designed and installed LNAPL recovery on site property (large-diameter, oil collection sumps).
- Install wall at base of levee to intercept LNAPL from entering Mad River.



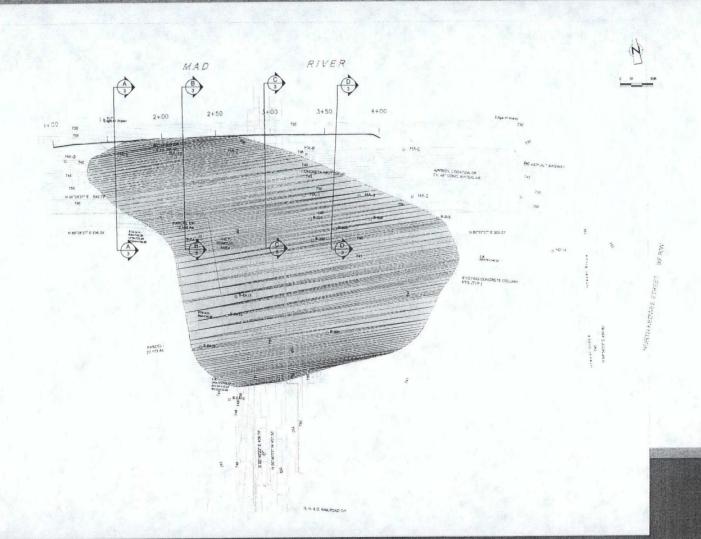
# LNAPL RECOVERY SYSTEM





not contaled

# SHEET PILE WALL





Patricia Polston

To: "pstubbs@craworld.com" cc: Gerald Phillips, Jean Caufield

Subject: Re: Dayton Meeting

I'd like to add site visit and future land use to the agenda. Pam and I have talked last week about the areas we would like to see during the site visit. Areas include the following: Unit #7-Hazardous wste Storage; Unit #4 still room; Unit #5-waste ast(spill interceptor); Unit #6-waste sump ozone sparging unit; free product recovery system; outfalls to Mad River (process sewer #19 & storm sewer #18); PCB equipment vaults; Bldg 5 & 24 hazardous waste storage areas; hydromation pit bldg 7; and walk along bike path to see proposed area for barrier. Thanks Trish "pstubbs@craworld.com" <pstubbs on 04/17/2001 12:03:22 PM</p>



"pstubbs@craworld.com" <pstubbs on 04/17/2001 12:03:22 PM

To: Patricia Polston, Gerald Phillips cc: Jean Caufield Subject: Dayton Meeting

Trish/Gerry:

Below are three items we would like to discuss at tomorrow's meeting.

- 1. Status of RCRA Corrective Action Voluntary Agreement.
- 2. Status of Current Conditions Report.
- 3. Status of Barrier Wall Installation.

Please let me know if you would like to add any additional items for discussion. Also attached in PDF format is the facility map for your information. You will notice that this map shows the area of the property for which we are proposing to complete corrective action. This area includes an additional Peerless lot which we would like to add to the defined site description in the Voluntary Agreement. I will hand deliver hard copies of this map tomorrow. Let me know if you have any questions.

Thanks!

Pam Stubbs 12638-02(PRES003)GN-WA001

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## **Planning Research Corporation**

### PRC Environmental Management, Inc.

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### PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

GENERAL MOTORS CORPORATION
HARRISON RADIATOR DIVISION, DAYTON PLANT
DAYTON, OHIO

OHD 017 958 604

### Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

Work Assignment No. : C05087

EPA Region : 5

 Site No.
 :
 OHD 017958604

 Date Prepared
 :
 December 3, 1990

 Contract No.
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 68-W9-0006

 PRC No.
 :
 009-C05087

Prepared by : PRC Environmental

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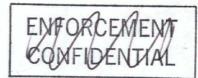
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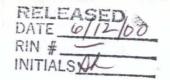
PRC Environmental Management, Inc. (PRC) performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and or likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the General Motors Corporation, Harrison Radiator Division (Harrison) facility in the city of Dayton, Montgomery County, Ohio. This report summarizes the results of the PA/VSI and evaluates the potential for releases of hazardous wastes or hazardous constituents from SWMUs and other AOCs identified. In addition, a completed EPA Preliminary Assessment Document (EPA Form 2070-12) is included in Attachment A to assist in the prioritization of RCRA facilities.

The Harrison facility is located at 300 Taylor Street, in a heavily industrialized area northeast of downtown Dayton, Montgomery County, Ohio (Figure 1). The facility is bordered on the north by the Mad River, on the west by Webster Street, on the south by Pitts Street, and on the east by North Keowee Street. There are no residential areas in the vicinity of the facility. The facility occupies roughly 35 acres.

The physical structures of the Harrison facility date back to the 1920s. Current production processes were introduced in the 1950s. General Motors is the sole owner/operator of the Harrison facility. Harrison develops, manufactures, assembles, and tests automotive air conditioning compressors. Hazardous wastes are generated during the painting and cleaning of parts. Painting air conditioner compressors generates waste paint sludge. Solvents are used to degrease metal parts. The solvents, trichloroethylene and tetrachloroethylene, were used in the past. Current degreasing and cleaning operations use 1,1,1-trichloroethane and several non-chlorinated solvents. Harrison had a solvent reclamation system that is no longer in operation. Zinc and tin electroplating operations at the Harrison facility also generate hazardous waste streams. An on-site wastewater treatment facility is designed to handle oily wastes and plating wastes. All solid wastes are collected and shipped off-site for disposal.

The only documented release to a surface water body was from an NPDES-permitted outfall in May 1990. A discolored discharge into the Mad River, traceable to the Harrison facility, was identified as containing no reportable quantities of either CERCLA or RCRA constituents. The release was later recorded only as an unauthorized discharge. No environmental effects were noticed at the time.

Ground-water samples, taken from four on-site locations during a hydrogeologic investigation in 1988 were analyzed and indicated the presence of several volatile organic compounds. The source of this contamination is currently unknown.





A non-RCRA release occurred in 1975 during an accidental overfilling of the new solvent storage tank located on the western side of the facility. The tank and the nearby soils were excavated and removed from the site. Impacts of this release have yet to be determined.

The PA/VSI identified the following 19 solid waste management units (SWMUs) and one area of concern (AOC).

Solid Waste Management Units (SWMUs):

- 1. Solvent Storage Tank Area
- Dirty Solvent Storage Tank
- Clean Solvent Storage Tank
- 4. Still Bottom Scrap Tank
- 5. Waste Tank
- 6. Waste Tank Sump
- 7. Hazardous Materials Storage Cage (Building 5)
- 8. Hazardous Materials Storage Area
- 9. Hazardous Materials Staging Area
- 10. Plating Waste Sump
- 11. Wastewater Treatment Facility
- 12. Spill Interceptor (Building 12)
- 13. Spill Interceptor (Building 4)
- 14. Hazardous Waste Storage Cage (Building 24)
- 15. Dirty Stoddard Solvent Storage Tank (Building 24)
- 16. Dirty Stoddard Solvent Storage Tank (Building 7)
- 17. Degreasing Units
- 18. Satellite Cleaning Units
- 19. Paint Waste Accumulation Areas

Areas of Concern (AOCs):

1. Entire Site - Ground-water/Soil Contamination

SWMU Nos. 1, 13, 15, and 16 have a low to moderate potential for a release to ground water. Although they no longer contain hazardous materials, the old underground storage tanks may have been susceptible to mechanical failure when they did contain hazardous materials. These units are located in permeable rock formations that contain an unconfined aquifer. AOC No. 1 covers the entire site and is listed here because ground-water samples taken on-site have contained organic contaminants. The other SWMUs do not pose a threat of a release to ground water.

SWMU Nos. 1, 13, 15, and 16, and AOC No. 1 pose a secondary threat of release to a surface water body. These units all have potential for releasing contaminants to the shallow aquifer. Preliminary hydrogeologic results show that this aquifer could discharge to the Mad River and the Great Miami River. Contaminated ground water that discharged into either river

RELEASED DATE 6/12/00 RIN #

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could be called a discharge to surface water. None of the SWMUs pose a direct threat to any surface water body due to the presence of the floodwall between the facility and the river.

SWMU Nos. 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19 all have the potential for a release to air. The primary reason for these potential releases is that most of the chemicals, compounds, and waste materials present at the Harrison facility are volatile or semivolatile in nature. Any exposure to air could result in a release. The facility holds air permits that require monitoring of air emissions. AOC No. 1 might pose a threat of an air release if the contaminated site soils were exposed during removal or remediation. SWMU Nos. 1, 2, 3, 4, 5, 6, 7, 8, and 9 do not pose a threat as these units are no longer active.

SWMU Nos. 1, 5, 6, 13, and 16, and AOC No. 1 all have the potential for a release to site soils. Contaminated soil has already been encountered at SWMU No. 1 and AOC No. 1. The rest of the SWMUs pose a threat because they are either underground or above ground tanks, or they are in some other form of contact with site soils. SWMU Nos. 5 and 6 are no longer operational but had the potential for release when they were in operation. The remaining SWMUs pose no threat of release to site soils as they are either inoperative or have good secondary containment within the facility buildings.

Site access by the general public is very unlikely. The facility is completely fenced in and is patrolled by 24-hour guards. Access is limited to four guarded post houses on the west, south, and east boundaries of the facility. All SWMUs and the AOC are, thus, fenced in and inaccessible to the general public.

### 1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC) received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (U.S. EPA), under Contract No. 68-W9-0006 (TES 9), to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in U.S. EPA Region 5.

As part of Region 5's Environmental Priorities Initiative, the CERCLA and RCRA programs are working together to identify and address RCRA facilities that are a high priority for corrective action using available CERCLA and RCRA authorities. The PA/VSI is the first step in the process for prioritizing facilities for corrective action. Through the PA/VSI process, sufficient information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC). The purpose of the PA is to:

- Identify SWMUs and AOCs at the facility.
- Obtain information on the operational history of the facility.
- Obtain information on releases from any units at the facility.
- Identify data gaps and other informational needs to be filled during the VSI.

The PA includes a review of all documents and files located at state offices and at the U.S. EPA (Region 5) office in Chicago.

The purpose of the VSI is to:

- Identify SWMUs and AOCs not found during the PA.
- Identify releases not discovered during the PA.
- Provide a more specific description of the environmental setting.
- Provide more information on release pathways and the potential of releases to each media.
- Confirm operational SWMU, AOC, and release information obtained during the PA.

The VSI includes interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all SWMUs, identifying evidence of releases,

initially identifying potential sampling locations, and obtaining all information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the General Motors - Harrison Radiator Division, Dayton Plant (Harrison), Dayton, Ohio (OHD 017958604).

The PA was completed on August 20, 1990, and included information from the Ohio Environmental Protection Agency (OEPA) Southwest District files, and U.S. EPA Region 5 RCRA files. The VSI was conducted on August 27, 1990, and is summarized in Attachments B and C. Nineteen SWMUs and one AOC -- the site groundwater and soils -- were identified.

### 2.0 FACILITY DESCRIPTION

This section describes the facility location, past and present operations, processes that generate waste, waste streams, waste management practices, release history, regulatory history, the environmental setting, and receptors..

#### 2.1 FACILITY LOCATION

The Harrison facility is located at 300 Taylor Street in an industrialized area northeast of downtown Dayton, Montgomery County, Ohio (Figure 1). It occupies approximately 35 acres of an industrial district.

The Harrison facility is bordered on the west by Webster Street, on the south by Pitts Street, and on the east by North Keowee Street (Figure 2). The site lies near the confluence of the Mad River and the Great Miami River, with the Mad River forming the northern site boundary. The distance from the facility to the Miami River is 1/4 mile. There are no residences within a 1/4-mile radius. The nearest residence is located 1/2 mile north of the facility. There are no schools or hospitals within 1/2 mile of the facility. Figure 2 shows a map of the facility and its immediate vicinity. Railroad tracks cross the eastern quarter of the site parallel to North Keowee Street. Table 1 lists the SWMUs identified at the facility.

### 2.2 FACILITY OPERATIONS

The General Motors Corporation, headquartered in Detroit, Michigan, has owned the Harrison facility since the 1920s. The facility develops, manufactures, assembles, and tests automotive air conditioning compressors, and miscellaneous air conditioning parts. Final assembly is done on the west side of Buildings 1 and 12. Hazardous wastes are generated by painting operations, plating operations, and cleaning parts.

Compressors are spray painted twice in a production paint booth located in Building 12 (Figure 3). A maintenance spray paint booth located in Building 10 is used to hand-paint miscellaneous machine parts (Photo No. 10). Chromium-based paint is used for both operations. Paint for the production paint booth is stored in two bulk storage tanks located south of Building 12. Paint for the maintenance paint booth is received in cans and stored in a room adjacent to the painting area.

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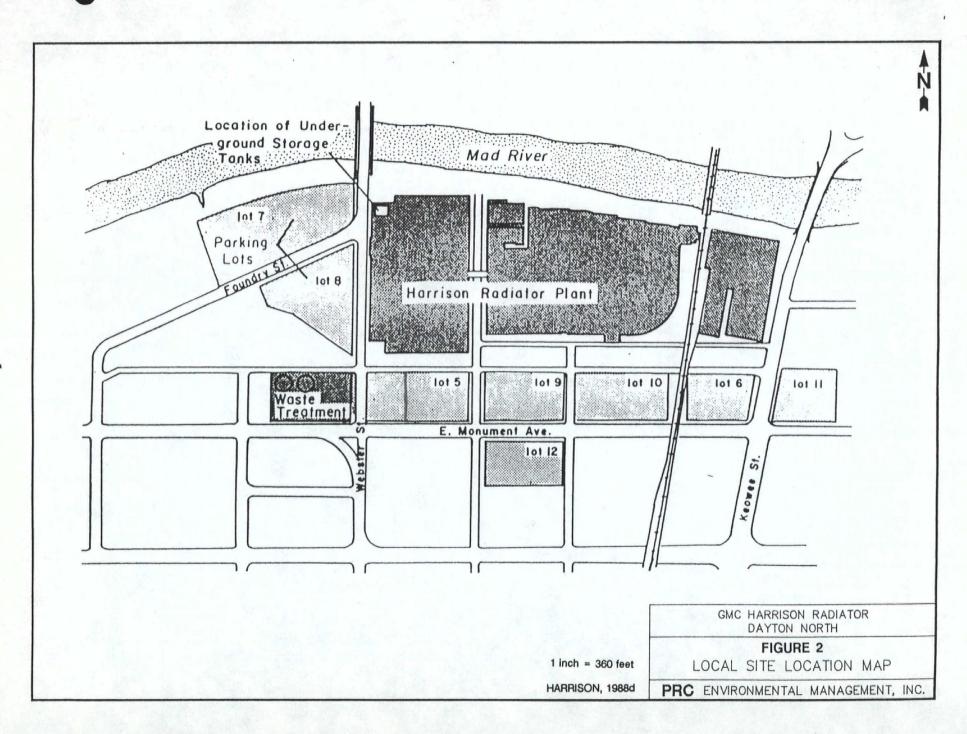


TABLE 1

## SOLID WASTE MANAGEMENT UNITS HARRISON FACILITY DAYTON, OHIO

SWMU Number	SWMU Name	RCRA Regulated Unit	Status
1	Solvent Storage Tank Area	Y <sup>a, b</sup>	Inactive
2	Dirty Solvent Storage Tank	$Y^{\boldsymbol{b}}$	Inactive
3	Clean Solvent Storage Tank	Y <sup>a, b</sup>	Inactive
4	Still Bottom Scrap Tank	$Y^b$	Inactive
5	Waste Tank	$Y^{b}$	Inactive
5	Waste Tank Sump	Y <sup>b</sup>	Inactive
7	Hazardous Materials Storage Cage (Building 5)	$Y^{b}$	Inactive
3	Hazardous Materials Storage Area	$Y^{b}$	Inactive
)	Hazardous Materials Staging Area	$Y^b$	Inactive
0	Plating Waste Sump	N°	Active
11	Wastewater Treatment Facility	N	Active
12	Spill Interceptor (Building 12)	Na, b	Active
13	Spill Interceptor (Building 4)	$Y^b$	Inactive
14	Hazardous Waste Storage Cage (Building 24)	Y	Active
15	Dirty Stoddard Solvent Storage Tank (Building 24)	Y <sup>b</sup>	Inactive
16	Dirty Stoddard Solvent Storage Tank (Building 7)	Yp	Inactive
17	Degreasing Units	N	Active
8	Satellite Cleaning Units	N	Inactive
19	Paint Waste Accumulation Areas	N	Active

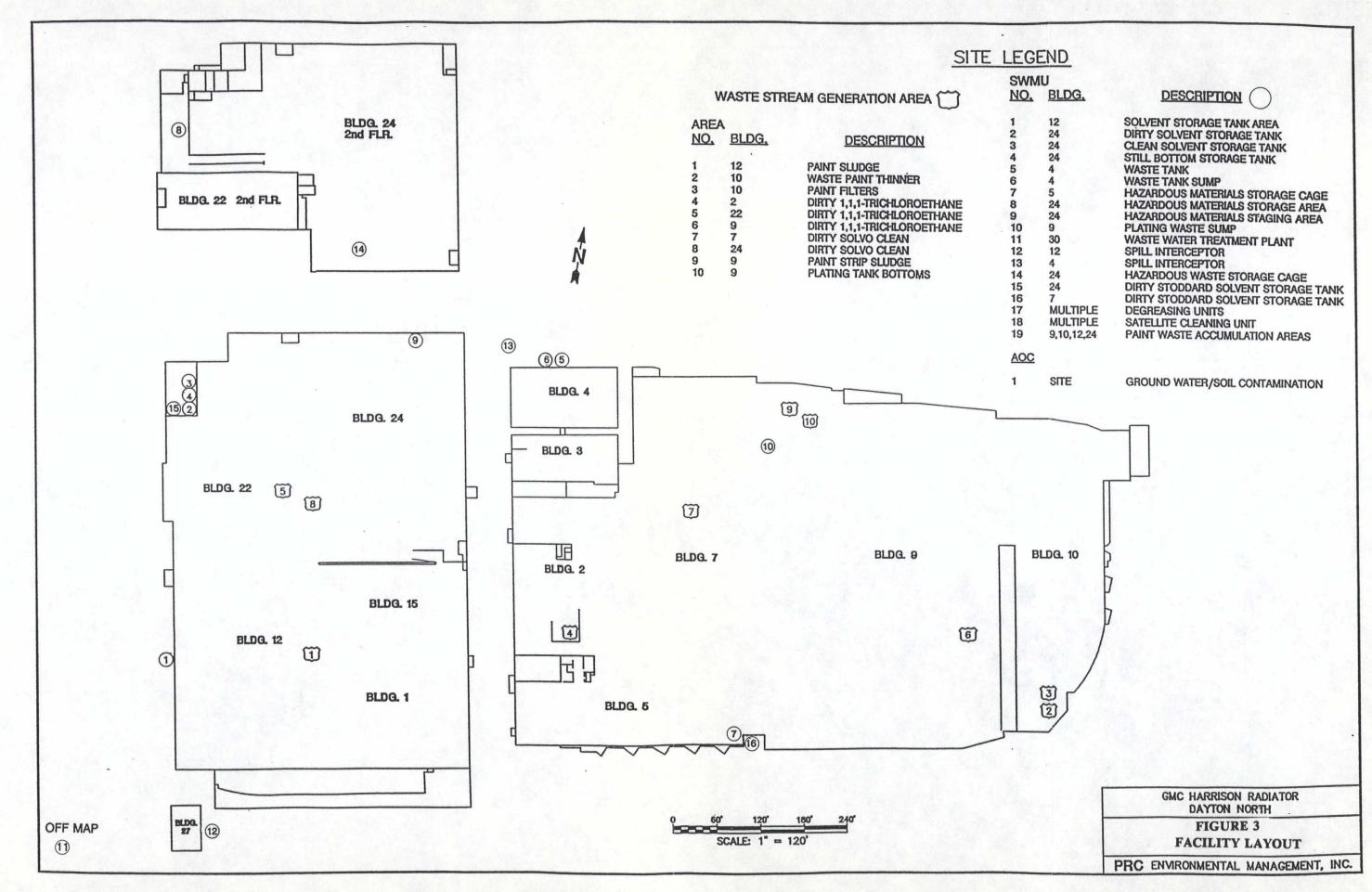
## Notes:

On RCRA permit, but never contained hazardous wastes. Tanks only contained new a

b

Pending RCRA closure plan approval.

The plating waste sump is considered to be part of the waste water treatment facility.



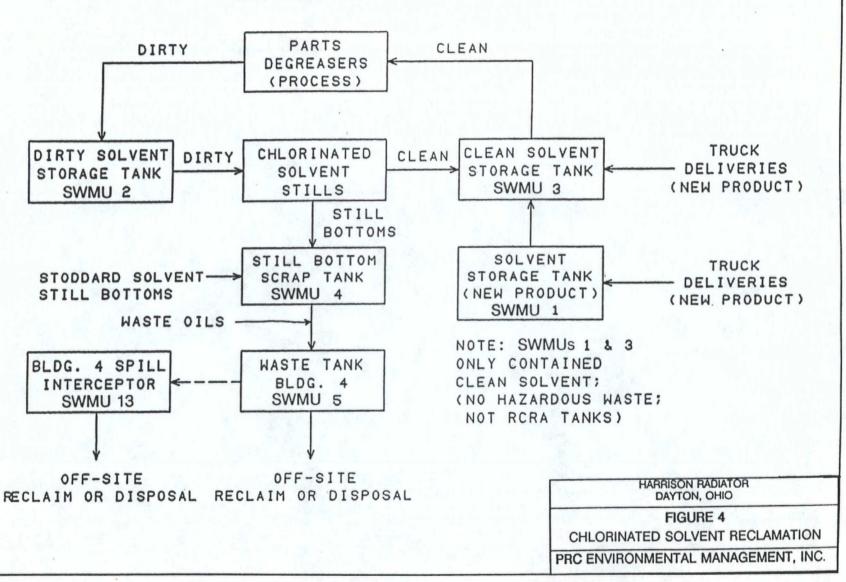
The zinc- and tin-plating of various air conditioning compressor parts takes place in Building 9 (Photo No. 10). This area also houses a paint-stripping operation in which hangers used to carry compressors during painting are stripped with an alkaline cleaner.

Various solvents have been used to degrease metal parts. These solvents included trichloroethylene, tetrachloroethylene, and 1,1,1-trichloroethane, which were stored in bulk from 1971 to 1973, 1973 to 1982, and 1982 to 1987, respectively. Stoddard solvent has also been used to clean small metal parts (Harrison, 1988b). Currently, Harrison has four 1,1,1-trichloroethane degreasing units and two units containing Solvo Clean, a nonchlorinated solvent (Photo Nos. 28 through 33). In addition, Safety-Kleen provides approximately 20 degreaser units that contain petroleum naphtha (Photo No. 34). Safety-Kleen removes the dirty solvent, cleans the unit, and supplies clean solvent. Dirty solvent is put in drums and removed by Safety-Kleen (Photo No. 6). These units are located throughout the manufacturing buildings.

New solvent is delivered to Harrison in drums. Until 1987, chlorinated and Stoddard solvents were stored in bulk and reclaimed in the still room in Building 24. Figures 4 and 5 present flow diagrams of the previous bulk solvent systems. The still room contains a tank storage area consisting of three 3,000-gallon underground tanks, two 10,000-gallon underground tanks, and eight 200-gallon aboveground tanks (Photo Nos. 2 and 3). The underground tanks are enclosed within a concrete vault that serves as a secondary containment (Harrison, 1988b).

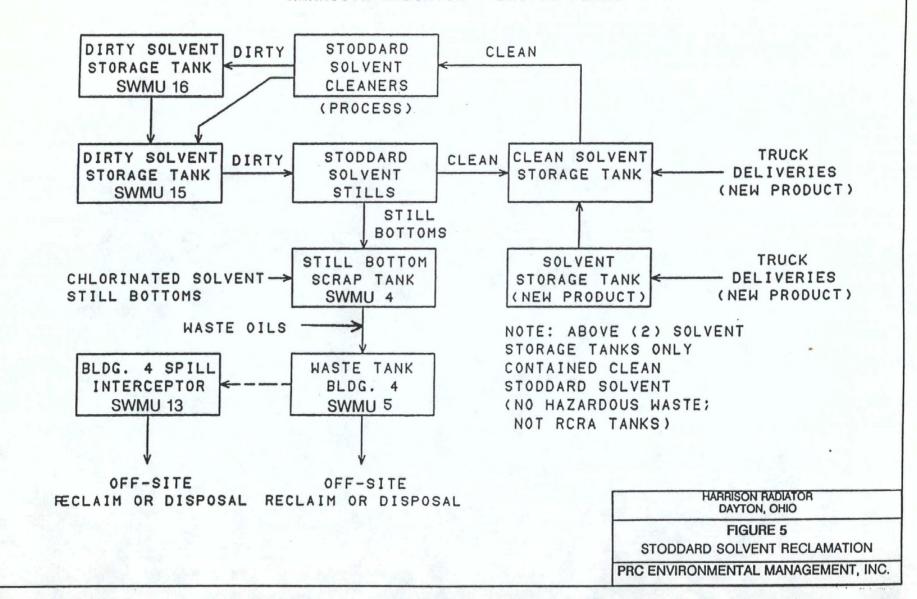
During its active life, one 3,000-gallon tank served as a Still Bottom Scrap Tank (SWMU No. 4) and stored trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane, and Stoddard solvent still bottoms. Prior to 1983, these still bottoms were combined with waste oils and stored in a 2,000-gallon aboveground tank north of Building 4 (Photo No. 5) prior to being transported off-site for reclamation or disposal. The other two 3,000-gallon tanks were used to store clean chlorinated solvent (SWMU No. 3) and Stoddard solvent. One 10,000-gallon tank (SWMU No. 2) was used to store waste trichloroethylene, tetrachloroethylene, and 1,1,1-trichloroethane prior to distillation. The other 10,000-gallon tank (SWMU No. 15) stored dirty Stoddard solvent prior to distillation. Four 200-gallon aboveground tanks contained clean Stoddard solvent after distillation. The other four 200-gallon tanks (Photo No. 2) stored clean chlorinated solvents after distillation (Harrison, 1988b). Since 1987, Harrison receives new solvent in drums and transports waste solvent off-site for disposal.

Harrison has an on-site wastewater treatment plant (SWMU No. 11) that treats process wastewater, including wastewater from the plating area (Photo Nos. 11 through 20). Treated water from the treatment plant is discharged to the City of Dayton wastewater treatment plant, while dewatered sludge is taken off-site for disposal.



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# PREVIOUS BULK STODDARD SOLVENT SYSTEM HARRISON RADIATOR - DAYTON PLANT



### 2.3 WASTE GENERATING PROCESSES

There are six primary waste streams being generated within the Harrison facility. The waste generation areas are found on Figure 3. Table 2 lists the waste types and the processes by which they are generated.

The first waste stream, D007, is generated during painting-related processes in Areas 1, 3, and 9, in Buildings 12, 10, and 9, respectively (Figure 3). Paint wastes are generated and accumulated from the periodic removal of sludge from the automatic paint spray line in Area 1, Building 12. Waste paint sludges are also generated during the process of stripping the paint off of the hooks used to suspend the compressors while they are being painted. This waste stream is generated in Area 9, Building 9. Waste paint filters are accumulated in the maintenance paint room in Area 3, Building 10. The paints that Harrison currently uses contain hexavalent chromium. Paint sludges collected from the painting areas are characteristic wastes that contain concentrations of chromium that exceed the EPA EP toxicity maximum concentration of 5.0 mg/l. Paint sludges are currently collected in 55-gallon drums and removed to the hazardous waste storage cage located on the second floor of Building 24 (SWMU No. 14). Paint filters are also stored in SWMU No. 14 prior to disposal. The drummed paint sludges are transported and disposed of off-site. Free liquids associated with the waste paint sludges are decanted and directed to the on-site wastewater treatment facility (SWMU No. 11). Paint wastes were accumulated in the Hazardous Materials Storage Cage in Building 5 (SWMU No. 7), the Hazardous Materials Storage Area (SWMU No. 8), and the Hazardous Materials Staging Area (SWMU No. 9) in the past. These SWMUs are no longer in operation. Harrison is in the process of converting to chromium-free paints to reduce the hazards associated with the paint sludges.

The plating process in Area 10 in Building 9 also generates a D007 waste stream. Plating tank bottoms accumulated during the electroplating process contain concentrations of chromium that exceed the EP toxicity maximum concentration of 5.0 mg/l. Plating tank bottoms are drummed and stored in the Hazardous Waste Storage Cage in Building 24 (SWMU No. 14) prior to disposal off-site.

The second waste stream (D001), is generated by paint thinning and degreasing processes. Waste paint thinner is accumulated in the maintenance paint room, Building 10, Area 2. The accumulated waste paint thinner exceeds the ignitability threshold of 60° C. This material is stored in drums and placed in the Hazardous Waste Storage Cage in Building 24 (SWMU No. 14) prior to off-site disposal.

TABLE 2

## SOLID WASTES HARRISON RADIATOR DAYTON, OHIO

Waste Name	Source	Primary Management Unit*		
Paint Sludge (D007)	Painting and Stripping	19, 14		
Paint Thinner (D001, F005)	Plant Maintenance	19, 14		
Paint Filters (D007)	Plant Maintenance	19, 14		
1,1,1-trichloroethane (F001)	Degreasers	17, 14		
Solvo Clean (D001)	Degreasers	17, 14		
Plating Tank Bottoms (D002, D007)	Plating Area	14		
Waste Treatment Sludge (F006)	Wastewater Treatment	11		
Petroleum Naphthalene (D001)	Satellite Cleaning Units	18		

## Notes:

Primary management unit refers to the SWMU that currently manages the waste; past practices were sometimes different.

There are two degreasing/cleaning operations that generate D001 ignitable waste streams. The degreasing process in Buildings 7 and 24 uses Solvo Clean, a nonchlorinated solvent. The spent solvent exceeds the EPA ignitability threshold and qualifies as a D001 waste. The spent solvents are drummed and stored in the Hazardous Waste Storage Cage in Building 24 (SWMU No. 14) prior to disposal off-site. There are also Safety-Kleen degreasing units placed throughout the facility that use a petroleum naphtha solvent as the degreasing agent. The spent solvent is an ignitable, D001 waste. Safety-Kleen replaces dirty solvent and cleans each degreaser at least weekly. Waste solvent is placed in drums and removed by Safety-Kleen.

The third waste stream, F005, is accumulated in the maintenance paint room, Area 2, Building 10. The waste paint thinner contains toluene. The waste is drummed and stored in the Hazardous Waste Storage Cage in Building 24 (SWMU No. 14) prior to shipment and disposal offsite.

The fourth waste stream, F001, is generated throughout the Harrison facility in Areas 2, 22, and 9, during degreasing operations. The degreasing agent currently used is 1,1,1-trichloroethane. In the past, trichloroethylene and tetrachloroethylene were used for degreasing. Until recently, Harrison has recycled these solvents on-site. The solvent reclamation facility is no longer in operation. The spent 1,1,1-trichloroethane, a spent halogenated solvent, is stored in drums in the Hazardous Waste Storage Cage in Building 24 (SWMU No. 14) and shipped off-site for reclamation.

The fifth waste stream, D002, is generated in Area 10, Building 9, during plating operations. The plating process uses an alkaline bath. The resulting tank bottoms have a pH value greater than 12.5 and are categorized as a hazardous corrosive waste. The wastes are drummed and stored in the Hazardous Waste Storage Cage in Building 24 (SWMU No. 14) prior to disposal off-site.

The sixth waste stream, F006, is a byproduct of the on-site wastewater treatment process in Area 11, Building 30. The plating wastes from the zinc and tin plating lines are fed into the Wastewater Treatment Plant (SWMU No. 11). The resultant wastewater sludge is characterized as an F006 wastewater sludge. The sludge wastes are collected in roll-off containers and are transported directly off-site for disposal.

### 2.4 RELEASE HISTORY

On May 14, 1990, the Ohio Environmental Protection Agency (OEPA) received information concerning an unauthorized NPDES discharge into the storm sewers from the

Harrison facility. The discharge was observed in the Webster Street sewer outfall west of the facility. The discolored discharge was traceable to the Harrison facility. No environmental effects were noticed at the time. OEPA and Harrison personnel determined that the primary source of wastewater in the process sewer was a mechanical deburring (rotofinish) operation in which steel parts are tumbled through a deburring media consisting of fired ceramics, sand, polypropylene and/or ground corn cobs. This media is flushed with a chemical solution to keep it clean and prevent rusting of steel parts. Further investigation by OEPA and Harrison personnel revealed that the discharge contained no reportable quantities of either CERCLA or RCRA constituents, or the hazardous substance spill regulations. It also contained no petroleum substances, which was the initial assumption when the discharge was first observed. Thus, the incident has been reported as an unauthorized discharge (Harrison, 1990b).

On December 2-3, 1987, Harrison had three underground tanks (SWMU Nos. 2, 3, and 4) in Building 24 tested for compliance with RCRA Underground Storage Tank requirements. Two of the tanks, the 10,000-gallon dirty solvent storage tank (SWMU No. 2) and the clean solvent tank (SWMU No. 3), were found to be leaking during these tests. Prior to 1973, the tanks were used for trichloroethylene recovery. Between 1973 and 1982, these tanks were used for recovery of tetrachloroethylene (perchloroethylene). Between 1982 until early or mid-1987, the tanks were utilized to recover 1,1,1-trichloroethane. On February 18, 1987, the 10,000-gallon dirty product tank (SWMU No. 2) was emptied of all liquid. On November 23, 1987, 2,000 gallons of water were removed and on December 2, 1987, 9 to 10 inches of sludge at the bottom of the tank were removed. The 3,000 gallon clean solvent tank (SWMU No. 3) was cleaned and emptied on July 16, 1987. On November 20, 1987, the still bottom scrap tank (SWMU No. 4) was cleaned and emptied. All three tanks are currently out of service (Harrison 1988a). These tanks (Figure 3) had been part of the facility solvent reclamation operation, which is no longer in operation.

As a result of the tank failures, potential impacts to the site soils and ground water were determined during a 1988 field study conducted to comply with EPA regulations under 40 CFR 265.196 (d) (3) (iii), which require a written report containing results of monitoring and sampling conducted in connection with a release from an underground storage tank. Ground-water samples, taken from four on-site locations in May 1988 (Figure 6), were analyzed and indicated the presence of several volatile organic compounds. These results are found in Table 3. An indoor boring was drilled into the underground concrete vault that held the tanks. Water samples from the indoor boring also indicated the presence of volatile organics at much higher concentrations (Table 3). Further testing of the soil sample taken from the indoor boring location indicates soil contamination at various depths. The soil sample results are presented in Table 4. The exact source of this contamination is currently unknown. The lateral and vertical extent of contamination have yet to be determined. This site-wide contamination is described as AOC 1.

TABLE 3
HARRISON ANALYTICAL RESULTS
GROUND WATER SAMPLES (ppb)

Constituent	5/88 HD-1	5/88 <u>HD-2</u>	5/88 HD-3	5/88 HD-4	4/88 b INDOOR
Trichloroethene	14.3	59.3	63.8	46.6	ND
Tetrachloroethane	42.9	39.8	135.0	142.0	4,200
1,1,1-Trichloroethane	2.0	1.5	1.7	2.0	33,200
1,1-Dichloroethane	11.3	ND	ND	1.5	5,900
Cis-1,2-dichloroethene	80.2	5.8	13.8	23.3	290,000
1,1-dichloroethene	1.3	ND	ND	ND	ND
Trans-1,2-dichloroethene	1.3	ND	ND	ND	ND
Volatile mineral oils	ND a	ND	ND	ND	3,500,000

## Notes:

Volatile mineral oils may be contained in several different groups of compounds including Stoddard solvents; however, there is no method to prove these are Stoddard solvents.

Source: Harrison, 1988d.

a ND indicates nondetected.

b Indicates separate sampling event from an indoor borehole at Building 24 on April 6, 1988.

TABLE 4

HARRISON ANALYTICAL RESULTS INDOOR SOIL SAMPLE (mg/kg)

Constituent	<u>2-4 ft</u>	6-8 ft	8-10 ft	<u>10-12 ft</u>
Trichloroethene	ND	8.5	0.2	ND
Tetrachloroethane	ND	100.0	1.2	2.0
1,1,1-Trichloroethane	ND	280.0	9.6	4.9
1,1-Dichloroethane	ND	20.5	ND	ND
Cis-1,2-dichloroethene	ND	20.0	3.6	0.2
Volatile mineral oils	ND	3,550.0	78.1	102.0

Notes:

Soil samples taken from indoor boring at Building 24 on April 6, 1988.

ND indicates not detected.

Source: Harrison, 1988d

A release of tetrachloroethylene from SWMU No. 1, the Solvent Storage Tank Area, occurred in 1975 (Harrison, 1990a). The release occurred as a result of overfilling the new solvent storage tank located outside of the western wall of Building 12 (Figure 3). The tank was removed and the surrounding soils were excavated in December 1989. Although clean soil was used as backfill, subsequent samples showed residual solvent contamination in the soil. Impacts of this release have yet to be determined.

### 2.5 REGULATORY HISTORY

The RCRA Part A permit application for the Harrison facility was approved by the Ohio Hazardous Waste Facility Approval Board in December 1981. The permit included containerized storage (S01) capacity of 11,880 gallons and tank storage (S02) capacity of 48,200 gallons. The following waste types were included:

WASTE TYPE	QUANTITY (pounds)	PROCESS CODES
F001	14,300	S01/S02
F008	48,200	S01
F010	5,700	S01
F011	440	S01
F017	142,560	S01
D001/F017	19,600	S01
D002/F017	1,900	S01
F001/D010/ D001	208,300	S02
D001	660	S01
F001/D001	29,200	S02

In November 1981, a revised Part A permit application was filed by Harrison to relocate a Hazardous Waste Storage Area, from Building 13 to Building 10. Expected increases in hazardous waste generation necessitated an increase in containerized storage (S01) process design capacity from 11,880 to 13,640 gallons (OEPA, 1982). The revision also called for the addition of storage for dewatered wastewater treatment sludge. An additional modification to this revision was filed in August 18, 1982 deleting this storage area from the application as a temporary exclusion was granted for the waste on December, 23, 1981 (Harrison, 1982).

On December 15, 1986, Harrison filed a partial closure plan with OEPA. The Hazardous Waste Tank (SWMU No. 5), the Hazardous Waste Tank Sump (SWMU No. 6), and the Spill Interceptor at Building 4 (SWMU No. 13) were to be closed. A revised Part A permit application was filed on December 19, 1986 that reflected the 11,880 gallons of containerized storage (S02) capacity and reduced the tank storage (S02) capacity from 48,200 to 36,000 gallons.

On February 24, 1987 a Part A revision was filed to reflect the relocation of the No. 8 drum storage area from Building No. 13 to Building No. 24, creating two hazardous materials units: the No. 8A storage area (SWMU No. 8) and the No. 8B staging area (SWMU No. 9). (The transfer of the No. 8 drum storage area from Building 13 to Building 10, requested in November 1981, was not acknowledged by OEPA and did not take place.)

A July 14, 1987 request for permit revision included the reinstatement of the F006 waste treatment sludge on the application (deleted by the Ohio Hazardous Waste Facility Approval Board on the original permit application), the deletion of the spill interceptor, hazardous waste unit No. 25, from the application, and a corresponding reduction of (S02) tank storage capacity by 10,000 gallons (Harrison, 1989a).

A closure plan for all hazardous waste units was submitted in August 1988. This document supersedes the previous partial closure plan filed in 1986. Closure plans for the Building 24 Tank Storage Area (SWMU Nos. 2, 3, and 4), which was on the original 1986 closure plan, the Building 7 Tank Storage Area (SWMU No. 16), the Building 4 Tank Storage Area (SWMU Nos. 5, 6, and No. 13), the Building 24 Drum Staging Area No. 8B (SWMU No. 9), the Building 24 Drum Storage Area No. 8A (SWMU No. 8), and Building 5 Container Storage Area (SWMU No. 7) were included.

On September 14, 1988, OEPA acknowledged the December 1986 request by Harrison to reduce (S02) storage from 48,200 gallons to 36,000 gallons due to the original partial closure request in 1986. OEPA also acknowledged the further reduction in (S02) storage capacity to 26,000 gallons. Approval would hinge on the success of certification of closure of SWMU Nos. 5, 6, and 13.

On September 27, 1988, Harrison requested the deletion of two solvent storage tanks, SWMU Nos. 1 and 3, from the application and a revision of several waste codes. Harrison claims that the storage tanks never contained RCRA hazardous wastes, only new and/or distilled solvents. This would result in a reduction of (S02) tank storage capacity by 13,000 gallons.

Several waste codes were revised to reflect recent EPA clarifications and redefinitions. The following changes were made to the waste codes: F008 to D002, F017 to D007, and F017 to F005.

A letter from OEPA dated February 27, 1989, acknowledged the new (S02) total capacity of 35,200 gallons. OEPA increased the (S02) storage capacity by 10,000 gallons, as they did not recognize the request for closure of the spill interceptor (SWMU No. 15).

A revised Part A was submitted to OEPA on July 27, 1989, per OEPA's request for a summary of all previous requests for closure and permit revisions. The revised Part A reflects the December 1986 partial closure request, the February 1987, July 1987, and September 1988 permit revisions, which had not been approved by OEPA. Harrison is currently awaiting approval for these permit modifications.

OEPA disapproved the September 1988 closure plan in December 1989. Harrison appealed this decision in January 1990 and is currently negotiating closure criteria with OEPA (Harrison, 1990c).

The Harrison facility holds NPDES permit # N131\*CD. There are several types of water discharges from this site. Most of the storm water runoff on site tends to flow southward and collects in the city sewer system under Pitts Street. It then flows west-northwest and discharges to the Mad River (Harrison, 1990c). Two additional storm outfalls discharge directly to the Mad River: the Building 24 outfall and the "G" building outfall. Water discharged at the facility's NPDES outfalls includes storm water runoff and noncontact cooling water. The wastewater treatment facility discharges its effluent to the Dayton Municipal Wastewater Treatment Plant on Guthrie Road. Water quality is monitored according to NPDES permit requirements and pretreatment standards (Harrison, 1990a).

One NPDES permit violation has occurred in the past 5 years. On May 24, 1990, a discolored discharge was observed in the Webster Street 72-inch city storm sewer discharge to the Mad River. The source of the release was an overflow of a rotofinish process within the manufacturing plant. No reportable quantities of either CERCLA or SARA constituents, or oil were involved. Therefore, this incident was described as an unauthorized discharge under the general conditions of the NPDES permit (Harrison, 1990b).

The Harrison facility operates under OEPA air permits 0857040029P001-3, 6-12, 14, 15, and 18-22, 0857040029F001-2, 0857040029L013, -15, -16, -18, -21, -28, 31-33, and 0857040029K003-6. Most air permits are not associated with any SWMUs; however, five degreasers have air permits. These are as follows: Permits 0857040029-L013,-L028, and -L033

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A revised Part A was submitted to OEPA on July 27, 1989, per OEPA's request for a summary of all previous requests for closure and permit revisions. The revised Part A reflects the December 1986 partial closure request, the February 1987, July 1987, and September 1988 permit revisions, which had not been approved by OEPA. Harrison is currently awaiting approval for these permit modifications.

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are 1,1,1-TCA degreasers. The first two are located in Building 22 and the last is in Building 29. Permits 0857040029-L016 and -L032 are for two solvo-Clean degreasers found in Buildings 24 and 7, respectively. There have been no air permit violations during the past 5 years (Harrison, 1990b).

The Harrison facility has been subject to periodic RCRA inspections by the OEPA since 1981. A May 20, 1982, inspection by OEPA found the facility to be in compliance with all applicable hazardous waste laws and regulations (OEPA, 1982). A RCRA Interim Status inspection in July 12, 1983, listed the facility as a generator and a storage facility and found Harrison to be in compliance (OEPA, 1983). A RCRA Land Disposal Restriction (LDR) inspection was completed at the Harrison facility on July 27, 1988. Facility compliance was acknowledged in a February 24, 1989 letter from OEPA (OEPA, 1989). A general compliance inspection and a RCRA LDR inspection were conducted on June 19, 1990. At that time, Harrison was listed as a generator and as a storage facility. One 55-gallon drum had two small holes in it and one drum had an open funnel at the time of the inspection. The facility could not provide verification of the required weekly inspection after June 6, 1990 (OEPA, 1990). The latter violation was cleared up with OEPA. The report was being finalized at the time of the inspection. The other issues have been addressed and the facility is in compliance (Harrison, 1990c).

#### 2.6 ENVIRONMENTAL SETTING

This section details the climate, flood plains and surface water, geology and soils, ground water, and potential receptors in the vicinity of the Harrison facility.

# 2.6.1 Climate

The average annual precipitation for the Dayton, Ohio, area is approximately 40 inches, with an average annual evapo-transpiration of approximately 32 inches. The net annual precipitation is 8 inches (Harrison, 1988a). The 1-year, 24-hour rainfall value is 2.5 inches (U.S. Department of Commerce, 1968). The mean number of days with precipitation of more than 0.01 inches is 128 days. The mean total snow/sleet per year is 27.4 inches and the mean average snow/sleet per month is 4.5 inches.

The average daily temperature in winter is 39° F with an average daily minimum winter temperature of 27.8° F. The average daily temperature in summer is 65.9° F, with an average daily maximum summer temperature of 75.8° F (U.S. Department of Commerce, 1968).

The mean daytime relative humidity is 63.3 percent. The mean 1:00 a.m. relative humidity is slightly higher at 75 percent. Prevailing winds are from the south-southwest with a mean annual hourly wind speed of 10.4 mph.

# 2.6.2 Floodplains and Surface Water

The Harrison plant is located within the Great Miami River drainage basin. The facility is adjacent to the south side of the Mad River near the confluence of the great Miami River (Figure 1). Surface water runoff from the site would naturally drains towards the river if it were not separated from the river by a large floodwall. The Harrison facility does lie within the floodplain of the Mad River; therefore, construction of a floodwall was necessary. This barrier should prevent most mass surface transport of site soils and surface water from entering the river.

The nearest surface water discharge point for the shallow aquifer is the Mad River. Shallow ground water can flow northward from the site into the river even though the regional ground water flow direction is to the south or southwest. It is therefore possible for contaminants to migrate from the site via shallow ground water flow into the river.

Any contaminants that do enter the Mad River may eventually reach the Great Miami River, which is 1/4 mile west of the plant.

# 2.6.3 Geology and Soils

The geology of the Dayton, Ohio area has been heavily influenced by glaciation as recent as 10,000 years ago. Pre-existing river valleys were scoured during periods of glacial advance and filled with glacial till during the glacial retreat. Glacial till deposits can be capable of storing and transmitting large quantities of water and are the site of many of the major Ohio aquifers, including the shallow and deep Mad River Aquifers beneath the Harrison facility. Post-glacial fluvial and alluvial activities have affected the near surface geology in the vicinity of the Harrison plant.

A geologic field study of the Harrison site was performed as part of a hydrogeologic field investigation in 1988 (Harrison, 1988d). As part of this investigation, four outdoor boreholes were drilled at key locations on the site (Figure 6). The findings in this section are drawn primarily from the results of this study.

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The geology beneath the Harrison plant is typical of glacial and glacial-fluvial valley fill sediments. Four distinct lithologic units are visible in cross sections generated for the site (Figures 7, 8, and 9). These units include, from the surface downward: surficial fill material, a silt and sand unit, a thick sand, and a clay and gravel unit.

Fill material in the plant study area varies from 5 to 16 feet in thickness. In the vicinity of the Webster Street Bridge, the fill is overlain by 6 feet of concrete. Fill material ranges from building rubble to silt rich sand and gravel.

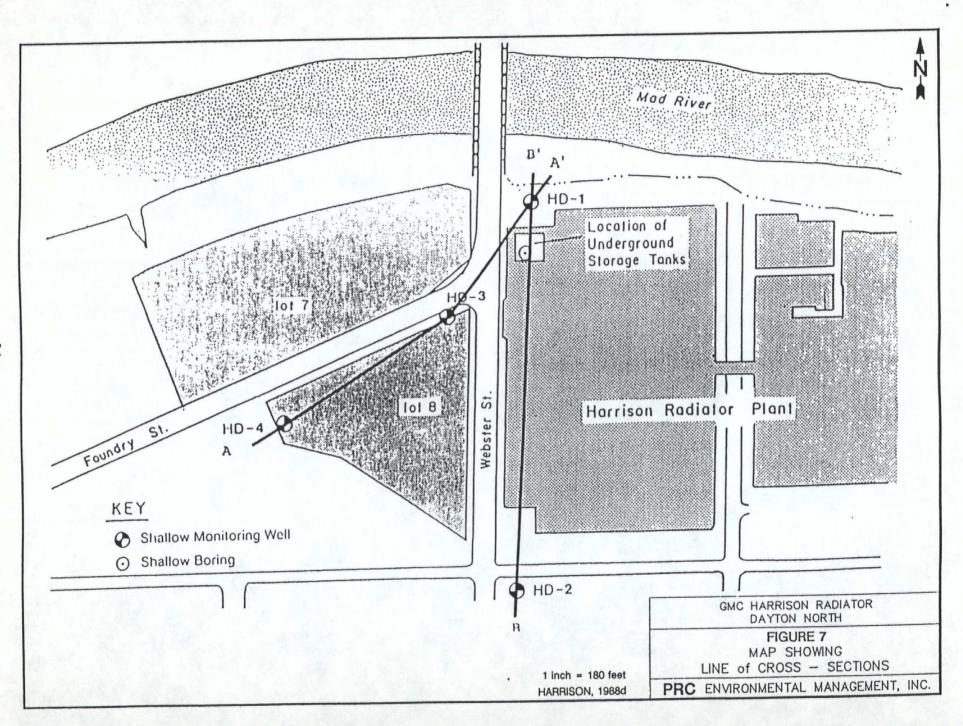
A naturally occurring, dark brown to dark gray silt and gravel unit is found below the fill material. This unit contains as much as 85 percent silt with lesser amounts of gravel and sand. Thickness ranges from 3 feet to 10 feet thick with a gradual thickening towards the river. The southwest portion of Lot 8 contains a 5-foot thick black, silty clay unit. This unit represents an abandoned transportation canal. The clay functioned as a low permeability liner to prevent canal water from permeating into the ground and ground water.

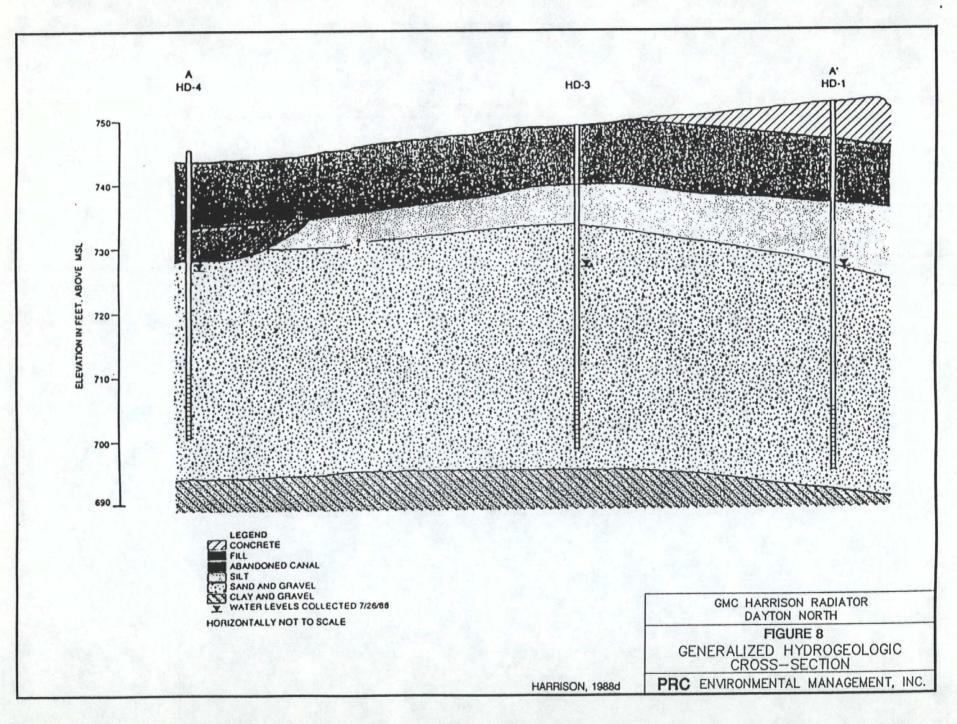
A shallow aquifer is found at depths ranging from 8.5 to 26 feet below the ground surface. This aquifer is comprised of gravel and sand intermixed with lenses of medium and coarse sand. The aquifer ranges from 28 feet to 35 feet thick with the thicker portion towards the Mad River.

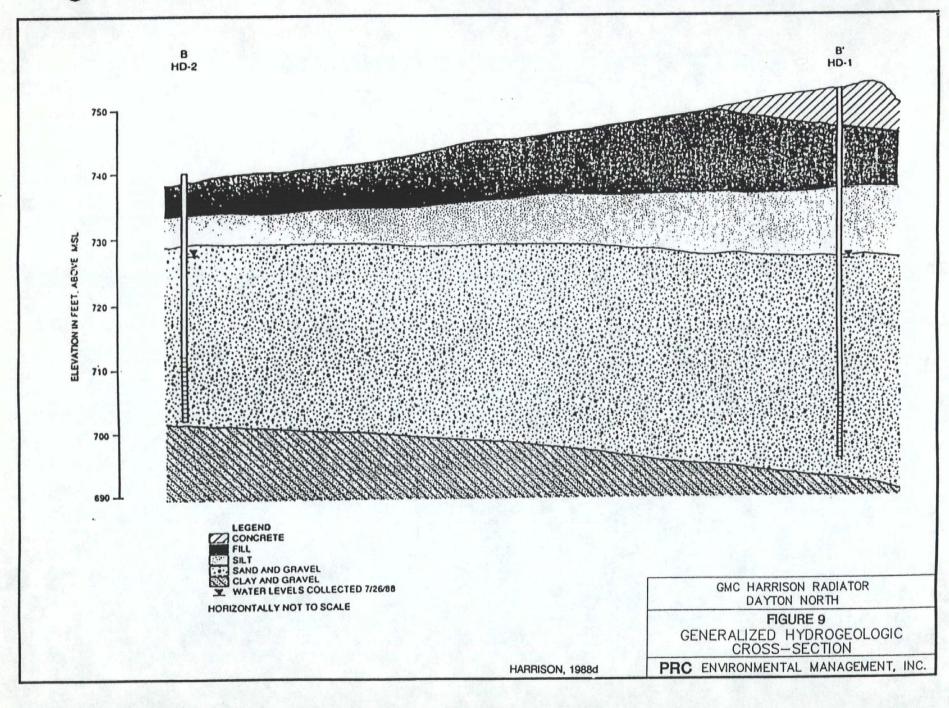
The lowest lithologic unit found in this study is a clay and gravel rich glacial till. This till, when present, separates the shallow and deep aquifers. This unit is a light to dark gray silty and clayey till that contains 15 to 20 percent well rounded sand and gravel and is characterized by low relative permeability (Harrison, 1988a). Depth to this unit ranges from 37 to 61 feet below ground surface and can be discontinuous laterally. Beneath this till layer is a unit similar in lithology to the shallow aquifer that comprises the deep Mad River aquifer. Where the till is absent the shallow aquifer and deeper aquifer are not separated hydraulically. The deeper aquifer is located beneath this till, when the till is present, and is similar lithologically to the shallow aquifer. Where the till is absent, the shallow and deep aquifers are hydraulically connected.

#### 2.6.4 Ground Water

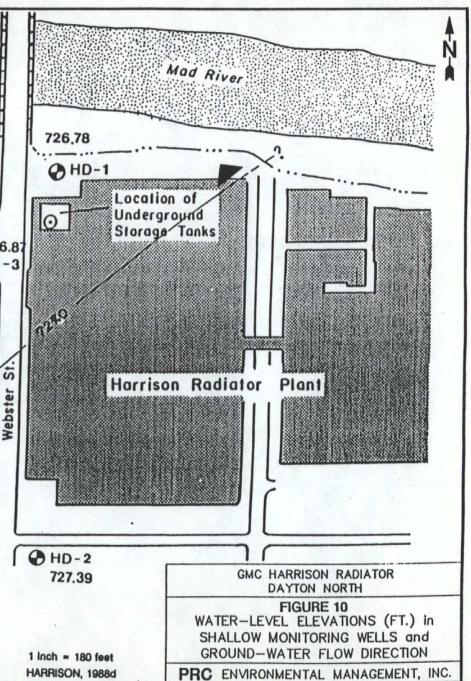
The bore holes drilled for the above study were converted into ground-water monitoring wells. The location of these wells are found in Figure 10. Ground- water level monitoring efforts yielded site-specific information on the depth to ground water and the direction of ground water flow (Harrison, 1988d).







**Groundwater Flow Direction** 



# 2.6.4.1 Shallow Unconfined Aquifer

The shallow aquifer is encountered at 8.5 to 26 feet below the surface. Depth to water, as measured in the monitoring wells, varied from 12.9 feet to 25.8 feet in May 1988, and from 12.97 to 25.86 feet in July 1988 (Harrison, 1988d). Ground water in the shallow aquifer is under unconfined conditions. The hydraulic conductivity has been estimated to be approximately 22 ft/day (Harrison, 1988a). The till layer below the shallow aquifer has relatively low permeability and can function as a lower confining unit.

# 2.6.4.2 Deep Unconfined Aquifer

In areas where the till layer is either absent entirely or laterally discontinuous, the shallow and deep aquifers can be hydraulically connected and can respond as an unconfined unit. This aquifer system can vary widely in thickness.

# 2.6.4.3 Deep Semi-Confined Aquifer

The ground water in the deeper aquifer is generally under semi-confined conditions. The low permeability till unit functions as an upper confining zone. The estimated hydraulic conductivity of the deeper aquifer is 140 to 200 ft/day (Harrison, 1988a).

# 2.6.4.4 Ground Water Flow Direction

The regional direction of ground-water flow in the shallow and deep Mad River Valley aquifers is toward the southwest, parallel to the flow of the river. The Harrison plant is located on the confluence of two buried valley aquifers, the Mad River Valley aquifer and the Great Miami River aquifer. The direction of ground-water flow beneath the facility may shift from south east to south due to the influence of the Great Miami River aquifer.

The local ground-water flow direction at the northern edge of the plant is influenced by the nearest discharge point, the Mad River. Water level data obtained from the four monitoring wells on May 18, 1988 and July 26, 1988 show a slight ground-water gradient in the upper aquifer towards the river (Figure 10). This needs to be confirmed with further studies. It is likely that surface water levels may affect the ground water flow direction in the upper aquifer. Factors such as time of year and recent hydrologic events may result in subtle changes in ground-water flow direction of this upper aquifer (Harrison, 1988d).

# 2.6.4.5 Extent of Ground-Water Contamination

Contaminants released into the upper aquifer would tend to move towards the nearest discharge point, the Mad River. Plume formation may be affected by shifts in ground water flow direction due to seasonal or hydrologic events. Deeper contamination may move southwest to south the direction of regional ground water migration. The shallow aquifer may be susceptible to contamination from surface sources, such as leaking above-ground and underground storage tanks, as there are few barriers to vertical flow. If the till layer is present and is laterally extensive, it may function as a confining unit, protecting the deeper aquifer. Where the till is absent or has been breached in any way, there may be no barriers to vertical migration of contaminants.

Several organic contaminants were detected in soil and ground-water samples taken during the 1988 hydrogeologic investigation. Samples were taken at each of the four boreholes and at one indoor borehole located in the still room. Trichloroethene, tetrachloroethane, 1,1,1-trichloroethane, 1,1-dichloroethane, cis-1,2-dichloroethene, and volatile mineral oils were found in both mediums. In addition, 1,1-dichloroethene and trans-1,2-dichloroethene were found in the ground water samples. Samples were taken in April and May of 1988 (Harrison, 1988d).

This data reflects conditions during one period of time and does not adequately characterize different seasonal and hydrological factors.

#### 2.7 RECEPTORS

The Harrison facility is located northeast of downtown Dayton in a heavily industrialized area with no private residences within a 1/4-mile radius (Figure 1). The nearest residence is located 1/2-mile north of the facility. There are no schools or hospitals within 1/2-mile of the facility. The facility is completely fenced in and is patrolled by 24-hour guards. Access is limited to four guarded posthouses on the west, south, and east boundaries. Public access to the facility is restricted.

The closest downgradient source of municipal drinking water is from two wells operated by the City of Oakwood located approximately 2-1/2 miles south of the facility. However, Oakwood purchases water from the City of Dayton approximately six months out of the year. The Dayton source of public drinking water is currently the Mad River and Miami Well Fields that are located upgradient of the facility. This drinking water source supplies the Dayton area and areas downgradient of the facility. Industrial and commercial wells are located approximately 1/2 mile downgradient of Harrison in downtown Dayton but it is not known

whether or not these wells are currently in production and/or if they are used for drinking water The nearest potential downgradient surface discharge is the Mad River located north and adjacent to Harrison. If the ground water flow direction is found to be to the south, the nearest surface discharge point would be the Miami River approximately 2-1/2 miles from the facility (Harrison, 1988a).

Surface water is not used as a public drinking water supply source in the vicinity of Harrison. The floodwall on the northern boundary forms a physical barrier to surface flow to the north; therefore, ingestion of surface water from the site by individuals living to the north of the site is unlikely. Dermal contact with and accidental ingestion of contaminated surface water from the site by both adults and children is possible but unlikely as this is an industrialized area with no recreational facilities, parks, or streams within a 1/2-mile radius. There is potential for wildlife exposure in the Mad River if contaminated surface water is accidentally discharged to the river from Harrison's outfalls. Recreational use of the river (fishing, boating and swimming) in the vicinity of Harrison is not prohibited but is unlikely due to the industrial nature of the area.

Exposure to contaminated soils on-site by Harrison employees is possible if there was or is a surface spill on-site. Dermal contact and accidental ingestion could occur during emergency response or cleanup activities. Removal of underground tanks could also pose a health threat to workers especially if the tanks were used to contain hazardous materials. Exposure to the general public is unlikely as the area is fenced off and guarded. Surface runoff could carry soil off-site where there is little chance of accidental dermal contact or ingestion. Many of the chemicals handled by Harrison are volatile or semivolatile, thereby reducing the chance of chronic exposure.

The potential for inhalation exposure is the greatest for Harrison employees. Process operations utilize volatile organic chemicals. Air emissions are monitored as required by the air permits for this facility. Prevailing winds from the south or southwest would transport site emissions to the north or northeast. There are residences, schools, hospitals and parks within a 2-mile area to the north of the facility. The nearest residence is located 1/2 mile north of Harrison.

#### SOLID WASTE MANAGEMENT UNITS 3.0

This section describes in detail the SWMUs that were identified during the PA/VSI process. The following information is presented for each SWMU: a description of the unit, dates of operation, wastes managed, release controls, history of release, and observations. The locations of these SWMUs are given in Figure 3.

SWMU 1	Solvent Storage Tank Area
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Unit Description: The tank area (Photo No. 1) is located outside and adjacent to the west side

of Building 12 (Figure 3). The steel tank had a capacity of 10,000 gallons

and was used to store trichloroethylene prior to 1973 and

tetrachloroethylene from 1973 to 1982. Clean solvents for manufacturing processes were stored in this tank prior to use. After 1982, the tank was not in service. Bulk 1,1,1-trichloroethane was pumped directly to a storage tank in the still room. The unit was cleaned and removed in December 1989 under the Underground Storage Tank (UST) regulations. The tank area is accessible to site workers and is covered with a layer of

gravel.

Date of Start-up: Storage in this tank began in 1971.

Date of Closure: The solvent storage tank is no longer in operation. This tank was closed

under the UST regulations in December 1989 (Harrison, 1990a).

Wastes Managed: This unit never contained hazardous waste and should not have been listed

as a RCRA-regulated unit. A request was made in September 1988 to

remove it from the RCRA Part A permit.

Release Controls: No release controls existed when this tank was in operation. Since the tank

was removed, release controls are no longer necessary.

History of Release: An accidental overfill of the tank with tetrachloroethylene occurred in

1975 (Harrison, 1990a). The tank and the surrounding soils were

excavated by Harrison in December 1989. Testing after the excavation indicated the presence of solvents in the immediate area. The extent of

potential contamination is unknown.

Observations:

There is no longer a SWMU at this location. There are no remaining structures associated with tank storage or obvious signs of contamination. The potential for additional existing soil contamination near the tank area should be investigated.

SWMU 2

Dirty Solvent Storage Tank

Unit Description:

This tank is located in the still room in Building 24 (Figure 3). The steel tank has a capacity of 10,000 gallons and was used to store waste trichloroethylene (prior to 1973), tetrachloroethylene (from 1973 to 1982), and 1,1,1-trichloroethane (from 1982 to 1987) prior to distillation operations (Figure 4). The tank was emptied and cleaned in February 1987 and is currently awaiting closure pending OEPA's approval of the closure plan (Harrison, 1988b; Harrison, 1989a).

The tank is encased in a concrete vault beneath a basement-level concrete floor within Building 24. The vault was backfilled completely with well-sorted medium sand and some fine and coarse sand. Results from a shallow boring drilled approximately 2 feet from the tank indicated the presence of water at 5.5 to 6 feet below the tank room floor (Harrison, 1988d). The source of this water is unknown.

Date of Start-Up:

This unit began operation in 1971 (Harrison, 1990a).

Date of Closure:

This unit is no longer in operation. Closure is pending OEPA's approval of the closure plan submitted in September 1988.

Wastes Managed:

This unit handled F001 - spent halogenated solvent wastes. These solvents include trichloroethylene, tetrachloroethylene, and 1,1,1-trichloroethane.

Release Controls:

The tank is buried in a backfilled concrete vault. The integrity of the vault is unknown, although the presence of water in the vault indicates the potential for leakage. Since the tank is empty and out of service, current release controls are unnecessary.

History of Releases:

There are no known releases to any environmental medium. Analyses of samples taken from an indoor borehole drilled through the concrete floor

in Building 24 into the fill material in the vault indicated the presence of tetrachloroethylene, 1,1,1-trichloroethane, 1,1-dichloroethane, cis-1,2-dichloroethene, and other volatile mineral oils.

Observations:

The storage tank remains in place but has been emptied and cleaned. The unit itself could not be observed as it lies beneath the floor of Building 24.

SWMU 3

Clean Solvent Storage Tank

Unit Description:

The steel tank has a capacity of 3,000 gallons and was used to store clean trichloroethylene prior to 1973, tetrachloroethane from 1973 to 1982, and 1,1,1-trichloroethane from 1982 to 1987, all used in the manufacturing process. The tank was never used to store hazardous wastes. Only clean and distilled solvents were stored. It was incorrectly listed as a RCRA-regulated unit in the first permit. Harrison has made several requests via permit revisions to delete the clean solvent storage tank from the permit. The tank was cleaned and emptied on July 16, 1987 (Harrison, 1988d).

The clean solvent storage tank is encased in a concrete vault beneath the floor of Building 24. (See the unit description for SWMU No. 2.)

Date of Start-Up:

Storage in this unit began in 1971.

Date of Closure:

This unit is no longer in operation. This tank will be closed under UST regulations. Closure is pending OEPA's approval of the closure plan for the adjacent dirty storage tanks in the still room, submitted in September 1988. The unit was cleaned and emptied in July 1987 (Harrison, 1988b).

Wastes Managed:

No wastes were managed in this unit, and the tank should not have been listed as a RCRA-regulated unit. Removal from the RCRA permit was requested in September 1988.

Release Controls:

The tank is encased in a concrete vault beneath the floor of Building 24. As the tank is now empty, no release controls are necessary.

Release History:

There are no known releases from this unit.

Observations:

The unit could not be directly observed as it lies beneath the floor of Building 24.

SWMU 4

Still Bottom Scrap Tank

Unit Description:

This 3,000-gallon steel tank, located in the still room in Building 24, is encased in an underground vault. Still bottoms from the trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane, and Stoddard solvent distillation systems were combined and stored in this tank. The tank was cleaned and emptied on November 20, 1987 (Harrison 1988b).

Date of Start-Up:

This unit began operation in 1971 (Harrison, 1990a).

Date of Closure:

This unit is no longer operational. Closure pending OEPA's approval of the closure plan.

Wastes Managed:

This unit handled F001 and D001 wastes; trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane still bottoms; and Stoddard solvent still bottoms.

Release Controls:

The tank is enclosed within a concrete vault that functions as secondary containment (see the release control description for the dirty solvent storage tank, SWMU No. 2).

History of Releases:

There are no known releases from this unit.

Observations:

The unit could not be directly observed as it is located beneath the floor of Building 24.

SWMU 5

Waste Tank

Unit Description:

This 2,000-gallon tank was originally used for storage of waste oils and waste still bottoms from the distillation of trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane, and Stoddard solvent. Still bottoms were pumped from the still room scrap tank (Photo Nos. 5 and 6). It was also used for storage of other spent degreasing solvents and certain

waste oils, which were not to be reclaimed. The fiberglass waste tank is located under the canopy in the north alley attached to the garage (Building 4) (Harrison, 1989a). Since 1983, solvent still bottoms have not been stored in this unit. The tank is currently empty.

Date of Start-Up: This unit began operation in 1978 (Harrison, 1990a).

Date of Closure: This unit is no longer in operation. Closure is pending OEPA's approval of the closure plan.

Wastes Managed: This unit handled F001 and D001 wastes; 1,1,1-trichloroethane still bottoms; Stoddard solvent still bottoms; waste oils; tetrachloroethylene, and trichloroethylene still bottoms.

Release Controls: The area is diked with a sloping floor leading to a sump. Should the tank rupture or equipment malfunction, any spilled materials would be channeled by the sloping floor and collected in the spill interceptor tank (SWMU No. 13). A 17-inch wide by 6-inch high concrete curb extends from the north side of the waste tank to the halfway point of the underground tank (Harrison, 1988b).

History of Releases: No releases to the environment are recorded. Any spills would have been handled by the sump and spill interceptor.

No indications of leaks or spills from the tank were observed. The structural integrity of the tank appeared good.

SWMU 6 Waste Tank Sump

Observations:

Unit Description:

This concrete sump is located adjacent to the waste tank (SWMU No. 5) in the north alley, under the canopy attached to the garage (Building 4) (Photo Nos. 5 and 6). The 200-gallon sump and pump system was used to collect and transfer scrap materials and waste oils from drums into the waste tank. The sump contains oil-contaminated water and sludge, with trace amounts of solvents (Harrison, 1988b).

Date of Start-Up: This unit began operation in 1978 (Harrison, 1990a).

Date of Closure:

This unit is not in operation. Closure is pending OEPA's approval of the 1988 closure plan.

Wastes Managed:

This unit handled F001 and D001 wastes; 1,1,1-trichloroethane still bottoms; Stoddard solvent still bottoms; and waste oils.

Release Controls:

There is a 1-inch dike on the south and east sides of the sump, and the pavement is sloped towards the sump on the northern and western sides. Should the sump malfunction or become overloaded, all liquid wastes would collect and be contained in the spill interceptor (SWMU No. 13).

History of Releases:

No known releases from this unit have been reported.

Observations:

There were no obvious signs of releases or spills.

SWMU 7

Hazardous Materials Storage Cage (Building 5)

Unit Description:

The storage cage (Photo No. 7), located in the southwest corner of Building 5, had a listed capacity of 48 55-gallon drums (2,640 gallons total). It was used as a staging area for miscellaneous drummed liquid and solid hazardous waste materials prior to shipment for off-site disposal. The cage is 19 feet, 6 inches by 17 feet, 10 inches, with concrete walls on two sides and a floor-to-ceiling locked steel chain-link cage on the other two sides (Harrison, 1988b).

Date of Start-Up:

This unit began operation in 1980 (Harrison 1990a).

Date of Closure:

This area has not been used since August 1989. Closure is pending OEPA's approval of the 1988 closure plan.

Wastes Managed:

This unit handled the following wastes: F001, D001, D002, D007, and F005 wastes; tetrachloroethylene degreaser filters; dirty Freon TF; dirty Freon TMC; 1,1,1-trichloroethane; toluene; chloroform; hexavalent chrome; chromium plating tank bottoms; cyanide; paint booth bottom sludge; maintenance paint booth filters; alkaline paint strip sludge; dirty paint thinner; and Stoddard solvent filters.

Release Controls:

Access was limited. Incompatible wastes were not simultaneously stored in this storage area (Harrison, 1990b). A concrete berm surrounds the area.

History of Releases:

There are no known releases from this unit.

Observations:

The cage area appeared well bermed to prevent migration of spills. There was no evidence of leaks or spills within the cage.

SWMU 8

Hazardous Materials Storage Area (Drum Storage Area)

Unit Description:

The storage area, located on the second floor of Building 24, was used for storage of drummed waste paint sludge and paint filters prior to shipment for off-site disposal (Photo No. 8). This drum storage area measures 63 by 12 feet and has a concrete floor that is completely enclosed within Building 24. Drums stored in this area contained paint sludge without free liquids. Paint wastes were generated in the paint booth and auxiliary paint booth (Figure 3). Waste paint materials, containing hexavalent chromium, were collected from these areas and transferred to 55-gallon drums. Drums were then transferred to the hazardous waste staging area (SWMU No. 9) (Harrison, 1988b). There are no drummed wastes stored in this area at present.

Date of Start-Up:

This unit began operation in 1988 (Harrison, 1990a).

Date of Closure:

This area has not been used since 1989. Closure is pending OEPA's approval of the 1988 closure plan.

Wastes Managed:

This unit handled D007 wastes; waste paint sludge and paint filters; and drums containing no free liquid.

Release Controls:

Drum integrity was checked during weekly inspections. The storage area is no longer in use and release controls are not necessary.

History of Releases:

No known releases have been reported for this unit.

Observations:

The area is currently used for the storage of piping and related

nonhazardous materials.

SWMU 9

Hazardous Materials Staging Area (Drum Staging Area)

Unit Description:

The staging area, located on the first floor in the northeastern corner of Building 24, was used to stage drummed hazardous waste paint sludge and paint filters in prior to disposal off-site (Photo No. 9). The drum staging area measures 75 feet by 18 feet 6 inches and has a concrete floor completely enclosed by Building 24 (Harrison, 1988b). The storage capacity of this unit was 4,620 gallons, or 84 55-gallon drums. The drum staging area handled paint waste containing hexavalent chromium. This was the only hazardous waste staged in this area. Waste paint sludges were generated in the production paint booth and waste paint filters were generated in the maintenance paint booth (Figure 3). Initially, the 55-gallon drums were taken to the decanting area, in the northeast corner of the staging area, where all free liquids were poured off and routed into the floor drain leading to the wastewater treatment facility (SWMU No. 11).

Date of Start-Up:

This unit began operation in 1988 (Harrison, 1990a).

Date of Closure:

This unit is awaiting closure, pending OEPA's approval of the 1988 closure plan.

Wastes Managed:

This unit handled D007 wastes; waste paint sludges; and paint filters containing hexavalent chrome.

Release Controls:

Liquid releases were collected in a drain in the decanting area and were sent to the wastewater treatment facility (SWMU No. 11).

History of Releases:

No known releases were reported from this unit.

Observations:

This area is no longer used for staging drums. No evidence of past activities was observed.

SWMU 10

Plating Waste Sump

Unit Description:

The sump is located in the northwestern portion of Building 9 in the plating area and functions as the primary waste collection system for the plating operations (Photo No. 10). The sump is constructed of concrete with epoxy lining. Its capacity is 800 gallons. Harrison runs both zinc and tin plating processes. Chrome plating was discontinued. Wastes generated by the electroplating processes are collected in the sump and transferred to the wastewater treatment facility (SWMU No. 11) for treatment. The plating waste sump is recessed in the floor; liquid wastes are pumped through overhead lines to the treatment system. Plating wastes are segregated from other liquid wastes and are treated separately. All liquid wastes from the plating area are handled in this manner.

Date of Start-Up:

This unit began operation in 1980 (Harrison, 1990a).

Date of Closure:

This unit is still in operation and is considered part of the wastewater treatment facility.

Wastes Managed:

This unit handled plating wastewater and plating tank bottoms (D002 and D007) from zinc and tin plating, and hydrochloric acid. It also handled chromium plating wastes from past operations.

Release Controls:

All wastes from the plating operations are released to the sump system to be treated in the facility's plating wastewater treatment plant.

Release History:

No releases from this unit were recorded.

Observations:

All wastes generated by the plating processes are collected and treated by the on-site wastewater treatment system that includes a separate system for handling plating wastes. Wastes generated during treatment are drummed and shipped off-site for disposal.

SWMU 11

Wastewater Treatment Facility

Unit Description:

The wastewater treatment facility is at the corner of Webster Street and Monument Avenue and covers about 1 acre. The facility was built in 1980 at a cost of about \$10,000,000, and treats all process wastewater generated at Harrison. General and oily wastewater are treated separately from plating wastewater. The wastewater treatment processes are described below and a flow diagram of the system is given in Figure 11. Capacities of the appropriate units are provided on this figure. Annual waste capacities are 63,025,000 gallons of oily waste per year, and 10,693,000 gallons of plating waste per year. Wastes are transferred from waste production areas via overhead pipes in the plant to Building 30 for treatment.

General and oily wastewater are treated continuously. Incoming wastewater is collected in a wet well sump, then directed to an oil separator tank where oil is skimmed from the water surface. Sludge is settled out and sent to a separate sludge tank; oil is accumulated and sent to a reclaimer. From the separator tank, the water flows to a holding tank for batch collection and equalization. Upon leaving the tank, treatment chemicals are added, and the water enters a dissolved air flotation unit to remove contaminant scum. The water then flows to a pH adjustment tank and onto a gravity sand filter to remove any remaining particles. With treatment complete, the water leaves the plant via a sanitary sewer.

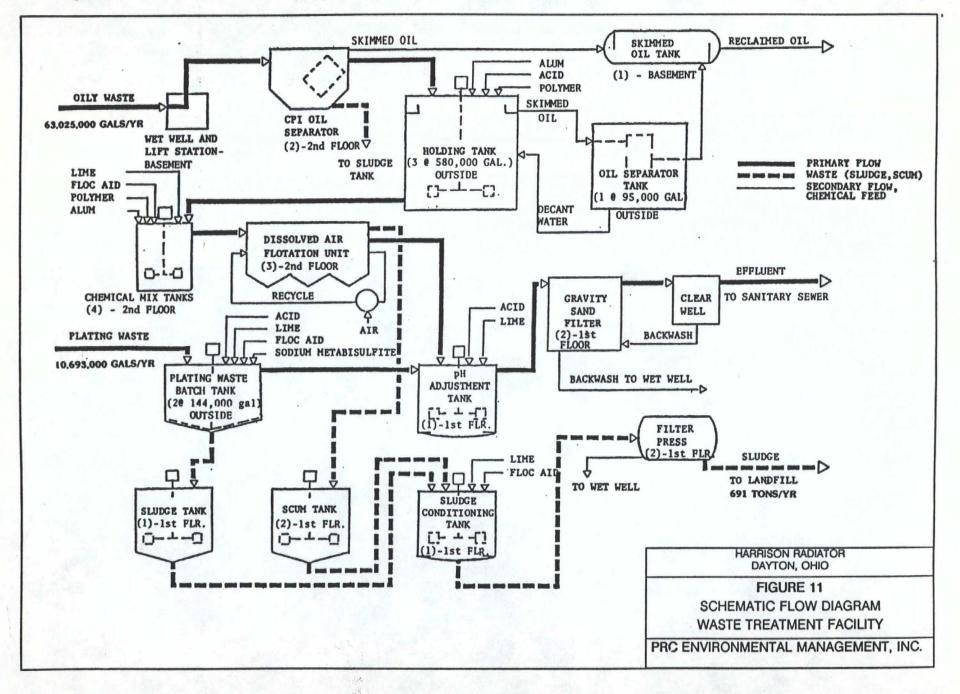
Plating wastewater flows directly to a batch treatment tank. Treatment is attained through precipitation, with the development of metal hydroxide sludge. Batch-treated water is directed to the pH adjustment tank, then to the gravity sand filter. Treated water then leaves the facility via the sanitary sewer. Sludge from the batch treatment tank is collected in a separate sludge tank and is directed to a sludge conditioning tank. Here, the plating sludge is combined with sludge from the general and oily wastewater treatment process and thickened by chemical addition. The sludge moves to a filter press for dewatering and is collected in a 15-cubic foot roll-off container. The dewatered sludge is removed by Metropolitan Environmental, Inc. to Adams Center Landfill, in Fort Wayne, Indiana, operated by Chemical Waste Management, Inc. The filtrate is recycled to the treatment tank.

Date of Start-up:

The treatment facility has been operating since 1980.

Date of Closure:

The treatment facility is active.



Wastes Managed:

The facility treats general process wastewater, oily wastewater, and plating wastewater.

Release Controls:

The wastewater treatment facility is equipped with five outdoor bulk tanks for treatment and for storage of excess wastewater. These tanks have a combined capacity in excess of 2 million gallons. The system is equipped with alarms, so plant processes could be shut down in the event of an emergency. All indoor floor drains flow to the wet well; the outside area is equipped with a collection system that also flows to the wet well. The entire area is surrounded by a 6-foot concrete wall topped by a steel chain-link fence.

History of Releases:

No releases from this unit have been documented.

Observations:

During the VSI, the facility was clean and appeared in good order. The system appeared to be operating properly, and there were no signs of spills or leaks.

**SWMU 12** 

Spill Interceptor (Building 12)

Unit Description:

The spill interceptor is located outside the southwest corner of Building 12 and east of Building 27 (Photo No. 21). It was designed for emergency containment of spills of new solvents within the Building 12 bulk truck unloading area. The 10,000 gallon reinforced concrete underground tank would have contained accidental releases of solvents during unloading (Harrison 1989b). This unit has never contained hazardous waste and the unloading area is no longer used for transfer of solvents (Harrison, 1989a).

Date of Start-Up:

The unit began operation in 1977.

Date of Closure:

The unit is currently in operation but was requested to be removed from the RCRA Part A permit on July 14, 1987, as it never contained hazardous wastes.

Wastes Managed:

This unit does not store hazardous waste. Rain water is the only material present.

Release Controls: There are no release controls. The unit currently stores rain water.

Release History: No known releases from this unit have been reported.

Observations: There was no evidence of spills or leaks from this area.

SWMU 13 Spill Interceptor (Building 4)

Unit Description: The spill interceptor is located under a canopy in the southwest corner of

the garage (Building 4). The unit is a 10,000-gallon reinforced concrete underground tank intended for emergency containment of spills within the curbed and sloped area under the canopy (Photo Nos. 5 and 6). There is a trench drain between the gasoline pumps and the interceptor tank; this drain empties into the tank. Any gasoline spilled during truck unloading or vehicle filling operations, or scrap material released from the waste tank (SWMU No. 5) or sump as a result of rupture or equipment malfunction, would be collected in this tank. This unit will be closed pending approval of the closure plan submitted to OEPA in December 1986. No hazardous

wastes are handled in this area at present.

Date of Start-Up: This unit started operation in 1977.

Date of Closure: Closure is pending approval by OEPA of the closure plan submitted in

September 1988.

Wastes Managed: This unit handled F001 and D001 wastes; spilled gasoline; 1,1,1-

trichloroethane; Stoddard solvent still bottoms; waste oils; and other spent

degreasing solvents from the waste tank (SWMU No. 5).

Release Controls: This unit is designed for containment of releases. The tank's 10,000-

gallon capacity exceeds the combined volume capacity of the waste tank

(SWMU No. 5) and the waste sump (SWMU No. 6) of 2,200 gallons.

Release History: There are no known releases from this unit.

Observations:

Harrison is waiting for closure approval for this tank. Hazardous materials are no longer handled by this tank.

SWMU 14

Hazardous Waste Storage Cage (Building 24)

Unit Description:

The hazardous waste storage cage is in Building 24, bordering the west wall (Photo Nos. 22 through 27). The entire unit is surrounded by an 8-foot steel chain-link fence and is composed of four separate areas: (1) paint sludges area, (2) alkalines area, (3) chlorinated solvents area, and (4) ignitables area. Each area measures about 20 by 30 feet and is built on a PVC sealed, single slab of concrete. Each area has been successfully water-leak tested. The four areas are separated by a 2½-foot high, steel highway guardrail, that extends across the west end of the area. Each area in the hazardous waste storage cage has its own padlocked gate that can only be opened by qualified hazardous waste handling personnel (Harrison, 1990a).

Date of Start-up:

The hazardous waste storage cage began accepting waste in 1989.

Date of Closure:

The area is active.

Wastes Managed:

The hazardous waste storage cage manages the following wastes:

- paint sludge (D007)
- paint strip sludge (D007)
- paint thinner (D001, F005)
- paint filters (D007)
- 1,1,1-trichloroethane (F001)
- Solvo-Clean (D001)
- plating tank bottoms (D002, D007)

Release Controls:

Each of the separate storage areas within the hazardous waste storage cage is surrounded by a 2½-inch high, metal strip berm. The entire area rests on a leak-tested, PVC-coated, single slab of concrete. The waste paint

sludge area is equipped with a channel for excess water that leads to the wastewater treatment system.

History of Releases: No releases have been documented concerning this SWMU.

Observations: During the VSI, the hazardous waste storage cage was in excellent order

and there were no signs of spills or leaks. Drums observed in the paint

sludge and alkalines areas were on pallets and in good condition.

SWMU 15 Dirty Stoddard Solvent Storage Tank (Building 24)

Unit Description: The 10,000-gallon steel tank is located in the still room in Building 24 near

the dirty solvent storage tank (SWMU No. 2), the clean solvent storage tank (SWMU No. 3), and the still bottom scrap tank (SWMU No. 4). All of these tanks are located in a concrete vault below the floor of Building 24. The tank was used to hold spent Stoddard solvent generated during the

manufacturing operations at Harrison. Stoddard solvents were reclaimed in

a similar manner as the other solvents. The Stoddard solvents were segregated from the other spent solvents. This reclamation process has

been discontinued.

Date of Start-Up: This unit began operation in 1967 (Harrison 1990a).

Date of Closure: This unit is no longer in operation. Closure is pending OEPA's approval.

Wastes Managed: This unit handled D001 and spent or dirty Stoddard solvents.

Release Controls: It is unknown whether this unit had any release controls. The tank is no

longer being used.

Release History: There are no recorded releases from this unit.

Observations: The integrity of the tank could not be determined during the VSI, because

the tank is under the floor in a vault.

SWMU 16

Dirty Stoddard Solvent Storage Tank (Building 7)

Unit Description:

A 10,000-gallon steel storage tank for dirty Stoddard solvents is located below ground, outside of Building 7. The only hazardous material ever stored in this tank has been waste Stoddard solvent. The tank lies beneath a trash compactor adjacent to Building 7. Stoddard solvents were reclaimed in a similar manner as the other solvents. The Stoddard solvents were segregated from the other spent solvents. This reclamation process has been discontinued.

Date of Start-Up:

The unit went into operation in 1967.

Date of Closure:

This tank is no longer in use and is scheduled for closure. Closure is pending OEPA's approval of closure plans.

Wastes Managed:

This unit handled the following wastes: D001, spent Stoddard solvents.

Release Controls:

This unit is no longer active. The integrity of the tank is not known.

Release History:

There are no known releases.

Observations:

The integrity of the tank could not be determined during the VSI.

SWMU 17

**Degreasing Units** 

Unit Description:

Harrison uses five degreasers for parts cleaning. Three are vapor degreasers, two in Building 22 (Photo Nos. 28 and 29), and one in Building 9 (Photo No. 30), use 1,1,1-trichloroethane. Used 1,1,1-trichloroethane is also generated in the Quality Assurance Laboratory in Building 2 (Photo No. 31). Small amounts of solvent are used for residue testing on finished compressors. The other two degreasers, one in Building 7 (Photo No. 33), and one in Building 24 (Photo No. 32), use Solvo-Clean, a non-chlorinated degreasing solvent. Removal of the waste solvent is dependent on use. Waste 1,1,1-trichloroethane and Solvo-Clean are loaded into 55-gallon drums and transferred to the hazardous waste storage cage (SWMU No. 14). The solvents are never mixed (Harrison, 1990a).

Date of Start-up: The degreasers have been in operation since the late-1960s.

Date of Closure: The units are active.

Wastes Managed: The degreasers use 1,1,1-trichloroethane and Solvo-Clean.

Release Controls: All of the degreasers are indoors on a single slab of concrete. The units

are equipped with exhaust ventilation to allow non-treated discharges

through the roof, lids, and high freeboards.

History of Releases: No releases have been documented concerning the degreasers.

Observations: During the VSI, the degreasers were in good operating order and there

were no signs of leakage or vapor releases.

SWMU 18 Satellite Cleaning Units

Unit Description Harrison leases small stationary and portable satellite parts cleaning units

from Safety-Kleen. Harrison has approximately 20 stationary units that hold about 20 gallons of solvent (Photo No. 34). The portable units, about the size of a bucket, hold about 3 gallons. The number of portable units at the facility varies; Harrison is now using 20 portable units. The units contain petroleum naphtha, a combination of mineral spirits and Stoddard solvents. Safety-Kleen cleans the units and removes the solvent about once

per week. The dirty solvent is pumped directly into drums and

immediately removed from the site (Harrison, 1990a).

Date of Start-up: Harrison has been leasing the units since 1988.

Date of Closure: The units are active.

Wastes Managed: The cleaning units use petroleum naphtha.

Release Controls: All of the satellite cleaning areas are indoors on a single slab of concrete.

They are self-contained and have lids. The stationary units are equipped with fume hoods. Some air emissions are vented through the roof, others

vent to the room air.

History of Releases: No releases have been documented concerning the cleaning areas.

Observations: During the VSI, the cleaning areas were in excellent shape. There were no

signs of leaks or spills, and all of the units appeared to be practically new.

SWMU 19 Paint Waste Accumulation Areas

Unit Description: There are three paint waste accumulation areas at Harrison: (1) waste

paint sludge is accumulated in Building 12 from periodic removal of sludge from the automatic paint spray line (Photo Nos. 35, 36, and 37); (2) waste paint sludge is accumulated in Building 9 from the stripping of parts hooks of paint buildup; (3) waste paint thinner and paint filters are accumulated in the maintenance paint room in Building 10 (Photo Nos. 38 and 39). The waste is stored in 55-gallon drums and eventually transferred to the

hazardous waste storage cage (SWMU No. 14) (Harrison, 1990a).

Date of Start-up: The paint waste accumulation areas have been used since the early 1970s.

Date of Closure: The units are active.

Wastes Managed: The areas manage waste paint sludge (D007), waste paint filters (D007),

and waste paint thinner (D001, F005).

Release Controls: The drums are indoors and rest on a single slab of concrete. The

accumulation drum in Building 12 sits on a pallet in a separate room

(Photo No. 35).

History of Releases: No releases have been documented concerning the accumulation areas.

Observations: During the VSI, the paint waste accumulation areas were in good order and

there were no signs of spills or leaks.

#### 4.0 AREAS OF CONCERN

PRC identified one AOC at the Harrison facility: the contaminated ground water and soil present throughout the facility property. This is discussed below.

### AOC 1 Entire Site -- Ground Water and Soil Contamination

A geologic and hydrologic study of the Harrison facility soils and ground water was conducted in 1988 after two underground storage tanks (SWMU Nos. 2 and 3) were found to be leaking during tank tight-testing (Harrison, 1988d). These tanks are located beneath the concrete floor in Building 24 (Figure 3). Four outdoor boreholes and one indoor borehole were drilled in on the western half of the property. The location of these boreholes is found on Figure 6. The outdoor boreholes were converted into ground-water monitoring wells. The indoor borehole was drilled through the concrete floor in Building 24 into the vault containing the underground storage tanks. Sample analyses shown in Tables 3 and 4, show the presence of organic contaminants in all the ground-water samples and in all soil samples, except the 2-4 foot surface soils in the indoor borehole. The highest values were obtained in the ground-water samples from inside the vault. Ground-water samples from Boreholes 1 through 4 indicate contamination away from the vault area. The source or sources of this contamination is unknown.

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### 5.0 CONCLUSIONS AND RECOMMENDATION

The PA/VSI identified 19 SWMUs and one AOC at the Harrison facility. Background information on the facility's location, operations, waste generating processes, release history, regulatory history, and environmental setting is presented in Section 2.0. SWMU-specific information, such as the unit's description, types of waste managed, release controls, release history, and visual observations is discussed in Section 3.0. AOCs are discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU and AOC. Table 5 summarizes the SWMUs and AOC at the Harrison facility and suggested further actions.

SWMU 1

Solvent Storage Tank Area

Conclusions:

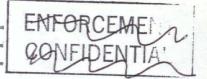
The potential for release via environmental media is summarized below:

Ground Water: Moderate. Spilled solvents may have reached the water table as surface soils can be conducive to vertical flow. All solvents used at this facility are volatile to some extent. It would be expected that some spilled material would have volatilized, thereby decreasing the potential for large volumes to reach the aquifer. Since the volume of the potential spill is unknown, a worst case scenario would allow for some aquifer contamination.

Surface Water: Low. The storage tank has been removed, along with adjacent soils. If contaminants have reached the shallow aquifer, there is a remote possibility that this contaminated ground water could discharge to the Mad River or Great Miami River.

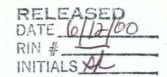
Air: Low. This area is unlikely to be a significant source of present or future airborne releases. A release to the atmosphere at the time of a spill would have been likely as solvents are volatile in nature.

On-site Soils: Moderate. If a spill of any of the solvents stored in the tank has occurred, there is a strong chance that some product or degradation product may remain in the site soils.



# SWMUs AND AOC SUMMARY

SW	MU	Operational Dates	Evidence of Release	Suggested Further Action
1.	Solvent Storage Tank Area	1971 to 1989; no longer operational*	Alleged volatile organic soil contamination	Perform soil and ground- water sampling for VOCs to verify contamination, and additional testing to determine extent of contamination. Perform removal or remedial action as needed.
2.	Dirty Solvent Storage Tank	1971 to present: no longer operational*	None	Complete closure of this unit.
3.	Clean Solvent Storage Tank	1971 to 1987; no longer operational*	None	Complete closure of this unit.
4.	Still Bottom Scrap Tank	1971 to present; no longer operational*	None	Complete closure of this unit.
5.	Waste Tank	1978 to present; no longer operational*	None	Complete closure of this unit. Perform one-time sampling of soils near tank for VOCs, PAHs, BTEX, oil and grease to check for contamination.
6.	Waste Tank Sump	1978 present; no longer operational*	None	Same as for SWUM No. 5 above.
7.	Hazardous Materials Storage Cage (Building 5)	1980 to 1989; no longer operational*	None	None
8.	Hazardous Materials Storage Area	1988 to 1989; no longer operational*	None	Complete closure of this unit.
9.	Hazardous Materials Staging Area	1988 to 1989*	None	Complete closure of this unit.
10.	Plating Waste Sump	1980 to present	None	Check integrity of sump and monitor air emissions for VOCs.
11.	Wastewater Treatment Facility	1980 to present	None	Continue monitoring as required under wastewater treatment permit.
12.	Spill Interceptor (Building 12)	1977 to present	None	None. No waste is stored in this unit. It now contains rainwater.





<u>swmu</u>	Operational Dates	Evidence of Release	Suggested Further Action
13. Spill Interceptor (Building 4)	1977 to present*	None	Closure has been requested on this unit. Soils, soil gas, and ground water should be monitored for VOCs, PAHs, BTEX, grease, and oil during closure activities and quarterly thereafter. The unit now contains rainwater.
14. Hazardous Waste Storage Cage	1989 to present	None	Weekly inspection of containers should be continued. Air should be monitored weekly for VOCs.
15. Dirty Stoddard Solvent Storage Tank (Building 24)	1967 to unknown date*	None	Integrity of tank should be determined. Tank contents should be verified. Request for closure has been filed.
16. Dirty Stoddard Solvent Storage Tank (Building 7)	1967 to unknown date*	None	Integrity of tank should be determined. Tank contents should be verified. Closure has been requested. Soil gas samples for VOCs and BTEX should be taken on a one time basis to identify contamination. Positive results would warrant more investigation to delineate extent of contamination.
17. Degreasing Units	1960s to present	None	Air monitoring for VOCs should be conducted monthly.
18. Satellite Cleaning Units	1988 to present	None	Air monitoring for VOCs should be done weekly.
19. Paint Waste Accumulation Areas	1970s to present	None	Current practices seem adequate. Air monitoring for VOCs should be done weekly.
AOC			
1. Entire Site - Ground Water/Soil Contamination	Not applicable	The presence of volatile organic compounds were found in four on-site locations. Specific source(s) have not been determined.	Existing monitoring wells should be re-sampled to determine seasonal effects on ground water contamination. Soil and water samples from deeper locations should be taken and analyzed for VOCs, BTEX, and oil and grease. The lateral extent of contamination also needs to be defined.

This unit is waiting closure approval.

Note:

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Recommendations:

A further investigation verifying the release is necessary. Site soils, soil gases, and shallow ground water should be tested for the presence of volatiles. Further excavation or remediation will depend on the outcome of this investigation.

SWMU 2

Dirty Solvent Storage Tank

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. The cleaned tank is enclosed in a concrete vault and poses no present or future threat of release. The contaminants in the fill material in the vault might penetrate into the subsurface if the integrity of the concrete vault was breached.

Surface Water: Low. The empty tank has good secondary containment.

Air: Low. The tank has been emptied and cleaned. There should be no source of volatiles from the tank itself. The fill material is enclosed in concrete and any contaminants present should not be exposed to the atmosphere.

On-Site Soils: Low. The unit has good secondary containment.

Recommendations:

Complete closure of this unit, including tank removal, is recommended. The fill material in the vault should be analyzed for the presence of volatiles. Results of these analyses will dictate the appropriate removal or remedial action. If the vault is left in place, the integrity of the concrete should be checked quarterly.

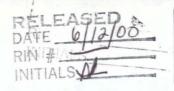
SWMU 3

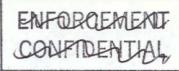
Clean Solvent Storage Tank

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. No wastes are or have been stored in this unit. The unit has good secondary containment.





Surface Water: Low. No wastes are or have been stored in this unit. The unit has good secondary containment.

Air: Low. No wastes are or have been stored in this unit. Volatiles may have been present when the unit was in operation as the tank stored clean solvents used in the manufacturing process. The tank is empty now.

On-Site Soils: Low. No wastes are or have been stored in this unit. The unit has good secondary containment.

Recommendations:

Complete closure of the clean solvent storage tank is recommended.

SWMU 4

Still Bottom Scrap Tank

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. The tank has been emptied of all wastes and has been cleaned. The unit has good secondary containment. Contaminated fill material surrounding the tank may penetrate the subsurface if the concrete vault walls are breached, although this is not likely.

Surface Water: Low. The tank has been cleaned and emptied. The unit has good secondary containment.

Air: Low. The tank has been cleaned and emptied. The unit has good secondary containment. However, any volatiles present in the fill may volatilize during a removal or remedial action.

On-Site Soils: Low. The tank has been cleaned and emptied. The unit has good secondary containment.

Recommendations:

Complete closure of the still bottom scrap tank is recommended. The fill material within the vault should be analyzed for the presence of volatiles. Results of these analyses will dictate the appropriate removal or remedial action. If the units are left in place, the integrity of the concrete vault should be checked quarterly.

SWMU 5

Waste Tank

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Conclusions:

The potential for release via environmental media is summarized below. Ground Water: Low. The spill interceptor (SWMU No. 13) was designed and constructed to contain spills from the waste tank. The 10,000-gallon spill interceptor tank could handle the 2,000-gallon capacity of the waste tank. The waste tank is scheduled to be closed. This will curtail future releases.

Surface Water: Low. The containment structures in place, the curb and the spill interceptors, should be able to handle accidental releases. Spills that would overwhelm the containment system would have very little potential to reach the nearest surface water body, the Mad River, due to the presence of the floodwall.

Air: Moderate. Many of the wastes stored in the tanks were volatile or semivolatile. If the tank is opened, some volatiles would escape into the atmosphere.

On-Site Soils: Moderate. There is the possibility that tank wastes would be released during closure activities, such as waste transfer. Site soils could be contaminated with solvents and oil-bearing wastes. The oily nature of the tank wastes might adsorb onto site soils.

Recommendations:

Further use of the waste tank is not planned. The entire waste tank system should undergo closure. Soils in the vicinity of the waste tank area should be sampled and analyzed for volatile organic compounds (VOC); polynuclear aromatic hydrocarbons (PAH); and benzene, toluene, ethyl benzene, xylene (BTEX) to verify that no releases have occurred. If contaminants are found, a further investigation into the nature and extent of contamination would be appropriate.

SWMU 6

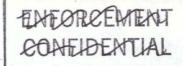
Waste Tank Sump

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. The spill interceptor tank (SWMU No. 13) is designed to handle releases from the sump. The sump is no longer in

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operation and the potential source of contamination will be eliminated when the sump is emptied.

Surface Water: Low. The spill interceptor tank (SWMU No. 13) should handle all releases due to sump failure. Any uncontained releases would have very little opportunity to enter the nearest surface water body, the Mad River, due to the presence of the floodwall.

Air: Moderate. Some of the wastes handled by this unit are volatile or semivolatile in nature. Exposure to air will induce a localized volatile release. Volatiles would also be released during any closure activities.

On-Site Soils: Moderate. Spillage during waste transfer, especially oily wastes, would adsorb onto site soils.

Recommendations:

Further use of this sump to handle hazardous materials is not planned. The sump should undergo complete closure along with the waste tank (SWMU No. 5) and spill interceptor tank (SWMU No. 13). Site soils should be sampled during closure for the presence of VOCs, total PAHs, BTEX, and oil and grease.

SWMU 7

Hazardous Materials Storage Cage (Building 5)

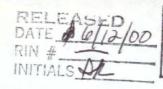
Conclusions:

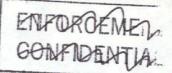
The potential for release via environmental media is summarized below.

Ground Water: Low. Wastes are contained in drums inside a building. There is no access to ground water. The area is no longer used as a hazardous waste storage area.

Surface Water: Low. Wastes are contained in drums inside a building. All liquid releases in the building were directed to the wastewater treatment facility.

Air: Moderate. Many of the wastes stored in the drums are volatile or semivolatile in nature. Opening a drum would expose wastes to the atmosphere, potentially resulting in an air release. This air release would be contained in the building.





On-Site Soils: Low. The storage area was located inside a building with no potential exposure to site soils.

Recommendations:

No further storage of hazardous wastes in this area is planned. The unit is undergoing RCRA closure at this time.

SWMU 8

Hazardous Materials Storage Area (Drum Storage Area)

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. This area is located on the second floor of Building 24. There are no hazardous wastes stored at this time.

Surface Water: Low. This area is located on the second floor of Building 24. There are no hazardous wastes stored at this time.

Air: Low. This area handled wastes that were volatile or semivolatile in nature. Exposure to air could have caused a release. No sources of volatile contaminants are present now.

On-Site Soils: Low. The area is located indoors on the second floor of a building.

Recommendations:

Further use of this storage area is not planned. Complete closure of this area is recommended.

SWMU 9

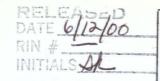
Hazardous Materials Staging Area (Drum Staging Area)

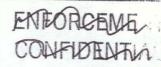
Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. Liquid releases were collected and treated on-site in the wastewater treatment facility. The staging area is indoors. There are no hazardous wastes stored in this area at this time.

Surface Water: Low. Liquid releases were collected and sent to the wastewater treatment facility. No hazardous wastes are stored in this area at this time.





Air: Low. This area handled wastes that were volatile or semivolatile in nature. Exposure to air could have caused a release. No sources of volatile contaminants are now present.

On-Site Soils: Low. Wastes were staged indoors prior to disposal. There are no hazardous wastes stored there at this time.

Recommendations:

Further use of this staging area is not planned. Complete closure of this unit is recommended.

SWMU 10

Plating Waste Sump

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. The plating waste sump is located inside Building 9. There is no contact with site soils and ground water.

Surface Water: Low. All liquid wastes are handled by the sump and are treated by the wastewater treatment facility. The sump is located indoors

and is not near any surface water body.

Air: Moderate. The plating waste contains spent solvents that are potentially volatile and may be released into the air.

On-Site Soils: Low. The plating waste sump is located indoors.

Recommendations:

Air emissions should be monitored for VOCs frequently, as is currently done under the facility's OEPA air permits. The integrity of the sump should be checked at least quarterly for leaks and signs of wear.

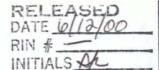
SWMU 11

Wastewater Treatment Facility

Conclusions:

The potential for releases via environmental media is summarized below:

Ground Water: Low. The potential for this unit to release hazardous constituents to ground water is low due to a good containment system and the massive amount of available wastewater storage space.



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Surface Water: The potential for this unit to release to surface water is low due to a good containment system and the massive amount of available wastewater storage space. If a release to the sanitary sewer was to occur, the discharge would flow to the city of Dayton wastewater treatment plant before reaching any surface water.

Air: Low. The potential for air releases from this unit are low because of the low volatility of the wastewater.

On-site Soils: Low. The potential for releases to on-site soils is low for the same reasons as those for ground water.

Recommendations:

No additional sampling or monitoring is recommended at this time.

SWMU 12

Spill Interceptor (Building 12)

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. No hazardous wastes are stored, and no releases can be expected.

Surface Water: Low. No hazardous wastes are stored, and no releases can be expected.

Air: Low. No hazardous wastes are stored, and no releases are expected.

On-Site Soils: Low. No hazardous wastes are stored, and no releases are expected.

Recommendations:

This tank has not been used for storage of hazardous wastes and should be removed from the RCRA permit.

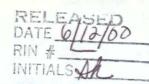
SWMU 13

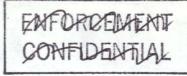
Spill Interceptor (Building 4)

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Moderate. The tank is buried outside and surrounded by fill material. The tank was installed in 1977, prior to the existence of the





new underground storage tank requirements. There is the possibility that the tank may be leaking. Leaked contaminants could reach the shallow aquifer beneath the site.

Surface Water: Low. Ground-water discharge into the Mad River or the Great Miami River is a remote possibility.

Air: Moderate. The tank is buried beneath the ground surface and is not in direct contact with the air. However, volatiles leaking from the tank could migrate in the form of soil gas.

On-Site Soils: Moderate. Any leak from the tank would come in direct contact with the site soils. Organics, such as waste oils and any other organics solubilized in these waste oils, could adsorb onto the soil particles.

Recommendations:

The integrity of the tank should be determined. If the tank is leaking, the soil, soil gas, and ground water should be tested for the presence of volatiles, total PAHs, BTEX, grease, and oil. In the event there has been a release, the extent of contamination will need to be determined.

SWMU 14

Hazardous Waste Storage Cage (Building 24)

Conclusions:

The potential for releases via environmental media is summarized below:

Ground Water: Low. This unit has a low potential for releases of hazardous constituents to ground water because it is indoors, bermed, and built on sealed concrete.

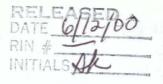
Surface Water: Low. There is a low potential for this unit to release to surface water for the same reasons as those for ground water.

Air: Low. The unit has a low potential for air releases because of the low amounts of wastes in the cage. Any release would be negligible.

On-site Soils: Low. This unit has a low potential for releases to on-site soils for the same reasons as those for ground water.

Recommendations:

Weekly inspections of containers should be continued. Also, the ambient air should be monitored weekly for VOCs.





#### SWMU 15

## Dirty Stoddard Solvent Storage Tank (Building 24)

Conclusions:

Available information is insufficient to develop accurate conclusions. The potential for release to environmental media is summarized below.

Ground Water: Low. The tank is no longer in operation. Past releases may have occurred as underground tanks tend to be subject to corrosion over time. This tank was installed in 1967. The normal life expectancy of a steel tank is 20 years.

Surface Water: Low. The tank is located inside a building with no physical contact with any surface water body.

Air: Low. The tank is located inside a building. Air emissions could be generated during tank closure and removal.

On-Site Soils: Low. The tank is no longer in use and is located inside a building. If the integrity of the tank has been breached in the past, a release to the surrounding soils is possible.

Recommendations:

Complete closure is recommended, during which the integrity of the tank and its contents should be determined.

SWMU 16

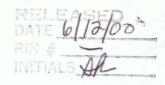
Dirty Stoddard Solvent Storage Tank (Building 7)

Conclusions:

The potential for release via environmental media is summarized below.

Ground Water: Low. The tank is no longer in operation. Past releases may have occurred as buried tanks tend to be subject to corrosion over time. This tank was installed 23 years ago in 1967. The normal life expectancy of a steel tank is 20 years.

Surface Water: Low. The tank is buried and is not directly exposed to the surface and/or surface water bodies. If the ground water has been contaminated, there is a remote possibility that contaminants could be discharged into the Mad River.





Air: Low. The tank is buried and is no longer in use. Closure activities such as removals, could result in air emissions if the tank holds any waste.

On-Site Soils: Moderate. If the integrity of the tank is in question, there is the possibility that spent Stoddard solvents have contaminated the soils in the tank area.

Recommendations:

Further information is needed to accurately describe this unit and to discuss the potential for an environmental release. Complete closure is recommended, during which the integrity of the tank and its contents should be determined. Also, since the tank has exceeded its normal life expectancy of 20 years, on-site soil gas samples should be collected and analyzed for VOCs and BTEX to contamination.

**SWMU 17** 

**Degreasing Units** 

Conclusions:

The potential for releases via environmental media is summarized below:

Ground Water: Low. The potential for the degreasers to release hazard constituents to ground water is low because the units are on concrete and indoors.

Surface Water: Low. The potential for the units to release to surface water is low because of the same reasons as those for ground water.

Air: Moderate. The potential for air releases from the units is low because the degreasers are equipped with exhaust ventilation to allow non-treated discharges to the air through the roof, lids, and high freeboards.

On-site Soils: Low. The potential for the degreasers to release to on-site soils is low for the same reasons as those for ground water.

Recommendations:

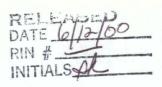
Air emissions should be monitored for VOCs monthly to evaluate the composition.

SWMU 18

Satellite Cleaning Units

Conclusions:

The potential for releases via environmental media are summarized below:





Ground Water: Low. The potential for the cleaning units to release hazardous constituents to the ground water is low because of regular maintenance, good containment systems, and the low amount of solvent used.

Surface Water: Low. The potential for the units to release to surface water is low for the same reasons as those for ground water.

Air: Moderate. The potential for air releases from the cleaning units is moderate. Some air emissions are vented through the roof and others vent to the room.

On-site Soils: Low. The potential for the units to release to on-site soils is low for the same reasons as those for ground water.

Recommendations:

Air sampling or monitoring on a weekly basis is recommended for the presence of VOCs.

SWMU 19

Paint Waste Accumulation Areas

Conclusions:

The potential for releases via environmental media is summarized below:

Ground Water: Low. The potential for the accumulation areas to release hazardous constituents to ground water is low because the drums are indoors and on a single slab of concrete.

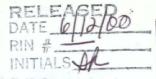
Surface Water: Low. The potential for releases to surface water are low for the same reasons as those for ground water.

Air: Moderate. The potential for air releases is moderate because of volatile components of the waste accumulated.

On-site Soils: Low. The potential for the unit to release to on-site soils is low for the same reasons as those for ground water.

Recommendations:

Air sampling or monitoring on a weekly basis is recommended at this time.





### AOC 1 Entire Site -- Ground Water and Soil Contamination

Further sampling and analysis should be conducted over the entire site to determine the vertical and lateral extent of ground-water contamination, the aquifer or aquifers that are contaminated, and the source of contamination. The samples should be tested for all materials used in the current or past manufacturing processes and their degradation products. Soils should also be tested for the same compounds.

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ATTACHMENTS

ATTACHMENT A

U.S. EPA PRELIMINARY ASSESSMENT FORM 2070-12



EPA FORM 2070-12(7-81)

#### POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFI	CATION
O1 STATE	02 SITE NUMBER
OH	OHD 017958604

II. SITE NAME AND LOCATION						
01 SITE NAME (Legal, common, or descriptive name	of site)	I 02 STREE	T. ROUTE NO., C	OR SPECIFIC LOCA	TION IDENTIFIES	
General Motors Corp., Harrison Radiator Division	The state of the s		or Street			
03 CITY		04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY	08 CONG
					CODE	DIST
Dayton		ОН	45401	Montgomery		
09 COORDINATES: LATITUDE  3 9 4 5 5 6 . N	LONGITUDE 0 8 4 1 1 0 1 . V	w				
10 DIRECTIONS TO SITE (Starting from nearest pub.	lic roed)					
North on I-75 to 1st Street exit, travel east on		sylor Street, proceed	to facility at 300	Taylor Street.		
II. RESPONSIBLE PARTIES						
01 OWNER (if known)		02 STREE	(Business, mail	ing residential)		
General Motors Corp. (GMC)		Not know	vn			
3 CITY		04 STATE	05 ZIP CODE	06 TELEPHONE	NUMBER	
Detroit		M	Not known	( ) Not known		
7 OPERATOR (If known and different from owner)		08 STREE	(Business, mail	ing, residential)		
GMC - Harrison Radiator Division			or Street			
9 CITY		10 STATE	11 ZIP CODE	12 TELEPHONE	NUMBER	
Dayton		ОН	45401	(513) 455-44	08	
3 TYPE OF OWNERSHIP (Check one)				1		
A. PRIVATE D B. FEDERAL:	Agency name)		. STATE	D. COUNTY	E. MU	INICIPAL
,	igency name;					
F. OTHER(Specify)		G. UNK	NOWN			
4 OWNER/OPERATOR NOTIFICATION ON FILE (Ch				447		
□ A. E	eck all that apply)	CONTRACTOR	C. STATE	□ D. OT	MONTH/DAY/YE	
□ NO				(Specify)	4	
	ACTOR NAME(S):P					
02 SITE STATUS (Check one)	C	3 YEARS OF OPERA	TION			
A. ACTIVE B. INACTIVE	C. UNKNOWN	1950s   BEGINNING YEAR EN			JNKNOWN	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRES	ENT, KNOWN, OR ALL	LEGED	3 - 1 8 a - 1 5 h		Te2 - 614 - 1-61	
Spent solvents/degreasers, waste paint/paint sk	idge, waste water treat	tment sludge, plating	wastes, waste o	oil, gasoline, toluen	e (paint thinner).	
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVI	RONMENT AND/OR DO	PHI ATION		- Ye		
The site as currently operated presents a minimum			nt for surface	ater and air nathur	we Ground wat	er has been enablised a
several organic solvents were detected. These					Tarties	
is available.	sariping locations wan	e widely separated a	o only 4 sample.	Word taken. No	mornation on co	ontarimation of site so
/. PRIORITY ASSESSMENT						
	s madium is about a	amplete Dr. 2 166	a Information	( Day 2 Day 2 '	a of Hammed	Candislana and tool t
PRIORITY FOR INSPECTION (Check one. If high of a A. HIGH	и ■ с.			D. NONE		Conditions and Incident
/I. INFORMATION AVAILABLE FROM						
1 CONTACT Kevin Pierard	02 OF (Agency/Org U.S. EPA	ganization)				03 TELEPHONE NUMBE (312) 886-4448
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGAN	NIZATION	07 TELEPHONE	NUMBER	08 DATE
Jon Lewis		PRC-EMI		(513) 241-0149		08 / 20 / 90 MONTH DAY YEAR



#### POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 2 - WASTE INFORMATION

I. IDENTI	FICATION
OH STATE	02 SITE NUMBER OHD 017958604

II. WASTE S	STATES, QUANTITIES, AND CI	HARACTERISTICS				
■ A. : □ B. : ■ C. :	SOLID B. SLURRY POWDER, FINES F. LIQUID SLUDGE G. GAS  OTHER (Specify)	TONSCUBIC Y/	ANTITY AT SITE s of waste quantities ust be independent) unknown  ARDS unknown  DRUMS unknown	03 WAS	A. TOXIC	L. INCOMPATIBLE M. NOT APPLICABLE
III. WASTE T	YPE		199			
CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASUR	RE 03 COMMENT	rs	
SLU	SLUDGE	unknown		(Actual amou	ints related to rate of p	production.)
OLW	OILY WASTE	unknown				
SOL	SOLVENTS	unknown		Solvents are	replenished on an as n	eeded basis.
PSD	PESTICIDES					
occ	OTHER ORGANIC CHEMICALS				74 - 4	
IOC	INORGANIC CHEMICALS	1 4 5			27.47	
ACD	ACIDS	- 1356.				
BAS	BASES	unknown		Plating Tank	Bottoms	
MES	HEAVY METALS	unknown		Chromium-be	aring paints will be elir	minated.
IV. HAZARI	OUS SUBSTANCES (See Appe	endix for most frequ	ently cited CAS No	umbers)		
01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER			S CONCENTRATION TO	06 MEASURE OF CONCENTRATION
F001	1,1,1-Trichloroethene	71-55-6	DR		unknown	unknown
F001	Solvo-Clean	7	DR		unknown	unknown
F005	Toluene	108-88-3	DR		unknown	unknown
F006	Waste Treatment Sludge	7	DR		unknown	unknown
D001	1,1,1-TCA	71-55-6	DR			unknown
D001	Toluene	108-88-3	DR		unknown	
D007	The Particular Control of the Contro				unknown	unknown
	Chromium (hexavalent)	7	DR		unknown	unknown
D001	Solvo-Clean	?	DR		unknown	unknown
				1.0		
1000						
	Contract the same time		A Marie Company			
V. FEEDSTO	CKS (See Appendix for CAS N	lumbers)		1.51		THE RESIDENCE TO SERVICE STATES
CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	O1 FEEL	OSTOCK NAME	02 CAS NUMBER
FDS	1,1,1-Trichloroethane	71-55-6	FDS			
FDS	Solvo-Clean	7	FDS			
FDE			EDS			

Part A Permit applications, revised applications, state inspection reports, closure plans, contingency plans, State and Federal site files.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)



# POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

O3 POPULATION POTENTIALLY AFFECTED: 20,000+ O4 NARRATIVE DESCRIPTION  Four monitoring wells installed on site yielded samples containing a detectable concentration of organic solvents. Shallow aquifer appears to be contaminated at locations. The shallow aquifer is part of a larger aquifer system used to supply drinking water to Deyton residents and nearby communities.  O1 © 8. SURFACE WATER CONTAMINATION 02 © 06SERVED (DATE: POTENTIAL ALLEGO O4 NARRATIVE DESCRIPTION D4 NARRATIVE DESCRIPTION D5 NO SURFACE WATER CONTAMINATION POTENTIALLY AFFECTED: Pocifity amployees O4 NARRATIVE DESCRIPTION D6 NARRATIVE D6 SCRIPTION D7 NARRATIVE D6 SCRI	HAZARDOUS CONDITIONS AND INCIDENTS			
Four monitoring wells installed on site yielded samples containing a detectable concentration of organic solvents. Shallow aquifer appears to be contaminated a locations. The shallow aquifer is part of a larger aquifer system used to supply dinking water to Dayton residents and nearby communities.  OI B. SURFACE WATER CONTAMINATION  O3 POPULATION POTENTIALLY AFFECTED:  O4 NARRATIVE DESCRIPTION  No surface water contamination has been noted.  O1 B. C. CONTAMINATION OF AIR  O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Many wastes are volatile or semi-volatile and will potentially be released to air in the immediate vicinity of the waste container(s). Exhaust vented to the air should opin to reaching the nearest residence.  O1 B. D. FIRE/EXPLOSIVE CONDITIONS  O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Many wastes are dessed as D001 (ignitable) and could become a threat if handled improperty. In the event of an explosion, it is unlikely to affect local resident facility is in an industrial area with no private residences nearby.  O1 B. D. RECC CONTACT  O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Several wastes, the organic solvents, are skin absorbable and could contract workers if improperly handled. The general population would not be affected as the site is secure.  O1 B. C. CONTAMINATION OF SOIL  O3 ARRATIVE DESCRIPTION  Several wastes, the organic solvents, are skin absorbable and could contract workers if improperly handled. The general population would not be affected as the site is secure.  O1 B. C. CONTAMINATION OF SOIL  O4 NARRATIVE DESCRIPTION  D4 NARRATIVE DESCRIPTION  O5 DESCRIVED (DATE:  B. POTENTIAL  D4 ALEC  O5 ARRATIVE DESCRIPTION  D6 NARRATIVE DESCRIPTION  D7 D6 NARRATIVE DESCRIPTION  D7 D6 NARRATIVE D6 SCRIPTION  D7 D6 NARRATIVE D6 SCRIP	01 M A. GROUNDWATER CONTAMINATION	02 OBSERVED (DATE:)	□ POTENTIAL	□ ALLEGED
Costions. The shellow equifer is part of a larger equifer system used to supply diriking water to Dayton residents and nearby communities.    Costions	03 POPULATION POTENTIALLY AFFECTED: 20,000+	04 NARRATIVE DESCRIPTION		
O3 POPULATION POTENTIALLY AFFECTED:				e contaminated at th
No surface water contamination has been noted.  O1	01 B. SURFACE WATER CONTAMINATION	02 OBSERVED (DATE:)	POTENTIAL	□ ALLEGED
O1 III C. CONTAMINATION OF AIR  O2 III OBSERVED (DATE: III POTENTIAL. IIII ALLEG O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Many wastes are volatile or semi-volatile and will potentially be released to air in the immediate vicinity of the waste container(s). Exhaust vented to the air should of prior to reaching the nearest residence.  O1 III O. FIREZEPLOSIVE CONDITIONS  O2 III OBSERVED (DATE: IIII POTENTIAL. IIII ALLEG O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Many wastes are classed as DO01 (ignitable) and could become a threat if handled improperly. In the event of an explosion, it is unlikely to affect local residents facility is in an industrial area with no private residences nearby.  O1 III E. DIRECT CONTACT  O2 III OBSERVED (DATE: IIII POTENTIAL. IIII ALLEG O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Several wastes, the organic solvents, are skin absorbable and could contract workers if improperly handled. The general population would not be affected as the site is secure.  O1 III F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35  O4 NARRATIVE DESCRIPTION  O4 NARRATIVE DESCRIPTION  O5 POTENTIAL  O5 POTENTIAL  O6 NARRATIVE DESCRIPTION  O6 NARRATIVE DESCRIPTION  O7 III G. DRINKING WATER CONTAMINATION  O6 NARRATIVE DESCRIPTION  O7 OF NARRATIVE DESCRIPTION  O	03 POPULATION POTENTIALLY AFFECTED:	04 NARRATIVE DESCRIPTION		
O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Many wastes are volatile or semi-volatile and will potentially be released to air in the immediate vicinity of the waste container(s). Exhaust vented to the air should of prior to reaching the nearest residence.  O1 III D. FIRE/EXPLOSIVE CONDITIONS  O2 III OBSERVED (DATE: III POTENTIAL III ALLEGO O3 POPULATION POTENTIALLY AFFECTED: Facility employaes O4 NARRATIVE DESCRIPTION  Many wastes are classed as D001 (Ignitable) and could become a threat if handled improperly. In the event of an explosion, it is unlikely to affect local residents facility is in an industrial area with no private residences nearby.  O1 III E. DIRECT CONTACT  O2 III OBSERVED (DATE: III POTENTIAL III ALLEGO O3 POPULATION POTENTIALLY AFFECTED: Facility employaes O4 NARRATIVE DESCRIPTION  Several wastes, the organic solvents, are skin absorbable and could contract workers if improperly handled. The general population would not be affected as the site is secure.  O1 III F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35  O4 NARRATIVE DESCRIPTION  O4 NARRATIVE DESCRIPTION  O1 III G. DRINKING WATER CONTAMINATION  O2 III OBSERVED (DATE: III POTENTIAL III ALLEGO O3 POPULATION POTENTIALLY AFFECTED: 20,000+ O4 NARRATIVE DESCRIPTION  O3 POPULATION POTENTIALLY AFFECTED: 20,000+ O4 NARRATIVE DESCRIPTION  O4 NARRATIVE DESCRIPTION  O5 POPULATION POTENTIALLY AFFECTED: 20,000+ O4 NARRATIVE DESCRIPTION  O5 POPULATION POTENTIALLY AFFECTED: 20,000+ O4 NARRATIVE DESCRIPTION  O5 POPULATION POTENTIALLY AFFECTED: All O5 NARRATIVE DESCRIPTION  O5 POPULATION POTENTIALLY AFFECTED: All O5 NARRATIVE DESCRIPTION	No surface water contamination has been noted.			
Many wastes are volatile or semi-volatile and will potentially be released to air in the immediate vicinity of the waste container(s). Exhaust vented to the air should option to reaching the nearest residence.  01  D. FIRE/EXPLOSIVE CONDITIONS  02  OSSERVED (DATE:	01 M C. CONTAMINATION OF AIR	02 OBSERVED (DATE:)	■ POTENTIAL	□ ALLEGED
prior to reaching the nearest residence.  O1 III D. FIRE/EXPLOSIVE CONDITIONS O2 III OBSERVED (DATE: III POTENTIAL III ALLEG O3 POPULATION POTENTIALLY AFFECTED: Facility employees O4 NARRATIVE DESCRIPTION  Many wastes are classed as DO01 (Ignitable) and could become a threat if handled improperly. In the event of an explosion, it is unlikely to affect local residents facility is in an industrial area with no private residences nearby.  O1 III E. DIRECT CONTACT O2 III OSSERVED (DATE: IIII POTENTIAL IIII IIII IIII IIII IIII IIII IIII	03 POPULATION POTENTIALLY AFFECTED: Facility employees	04 NARRATIVE DESCRIPTION		
O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Many wastes are classed as D001 (Ignitable) and could become a threat if handled improperly. In the event of an explosion, it is unlikely to affect local residents facility is in an industrial area with no private residences nearby.  O1 ■ E. DIRECT CONTACT  O3 POPULATION POTENTIALLY AFFECTED: Facility employees  O4 NARRATIVE DESCRIPTION  Several wastes, the organic solvents, are skin absorbable and could contract workers if improperly handled. The general population would not be affected as the site is secure.  O1 ■ F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35  O4 NARRATIVE DESCRIPTION  O4 NARRATIVE DESCRIPTION  The presence of steel and concrete underground tanks suggests that site soils may be contaminated (if these storage units were breached). Transfer operations a ground tanks and lines also pose a potential threat. No soil contamination has been observed.  O1 ■ G. DRINKING WATER CONTAMINATION  O2 □ OBSERVED (DATE:  O4 NARRATIVE DESCRIPTION  O5 POPULATION POTENTIALLY AFFECTED: 20,000+  O4 NARRATIVE DESCRIPTION  O5 POPULATION POTENTIALLY AFFECTED: 20,000+  O4 NARRATIVE DESCRIPTION  O6 NARRATIVE DESCRIPTION  O7 ■ H. WORKER EXPOSURE/INJURY  O7 ■ OBSERVED (DATE:  O6 NARRATIVE DESCRIPTION  O7 WORKERS POTENTIALLY AFFECTED:  All O4 NARRATIVE DESCRIPTION  Workers could be exposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handled the processes of the p		ased to air in the immediate vicinity of the wast	e container(s). Exhaust vented t	o the air should disp
Many wastes are classed as DO01 (Ignitable) and could become a threat if handled improperly. In the event of an explosion, it is unlikely to affect local residences facility is in an industrial area with no private residences nearby.  Of III E. DIRECT CONTACT  O2 III OSSERVED (DATE:	01 D. FIRE/EXPLOSIVE CONDITIONS	02 OBSERVED (DATE:)	■ POTENTIAL	□ ALLEGED
facility is in an inidustrial area with no private residences nearby.  1	03 POPULATION POTENTIALLY AFFECTED: Facility employees	04 NARRATIVE DESCRIPTION		
O4 NARRATIVE DESCRIPTION  The presence of steel and concrete underground tanks suggests that site soils may be contaminated (if these storage units were breached). Transfer operations a ground tanks and lines also pose a potential threat. No soil contamination has been observed.  O1 ■ G. DRINKING WATER CONTAMINATION  O2 □ OBSERVED (DATE:)  O4 NARRATIVE DESCRIPTION  As per the ground water discussion above, the aquifer, which is a drinking water source, could become contaminated.  O1 ■ H. WORKER EXPOSURE/INJURY  O3 WORKERS POTENTIALLY AFFECTED: All O4 NARRATIVE DESCRIPTION  Workers could be exposed during transfer operations, tank cleaning, production processes, degressing operations, waste water treatment operations, sludge handless and the processes of the storage units were breached). Transfer operations as ground in the second contaminated (if these storage units were breached). Transfer operations as ground tanks and lines also pose a potential threat. No soil contamination has been observed.  O4 NARRATIVE DESCRIPTION  Workers could be exposed during transfer operations, tank cleaning, production processes, degressing operations, wester treatment operations, sludge handless threatment operations, sludge handless threatment operations.			■ POTENTIAL	□ ALLEGED
The presence of steel and concrete underground tanks suggests that site soils may be contaminated (if these storage units were breached). Transfer operations a ground tanks and lines also pose a potential threat. No soil contamination has been observed.  O1 ■ G. DRINKING WATER CONTAMINATION  O2 □ OBSERVED (DATE:)  O3 POPULATION POTENTIALLY AFFECTED: 20,000+  O4 NARRATIVE DESCRIPTION  As per the ground water discussion above, the aquifer, which is a drinking water source, could become contaminated.  O1 ■ H. WORKER EXPOSURE/INJURY  O2 □ OBSERVED (DATE:)  O4 NARRATIVE DESCRIPTION  Workers could be exposed during transfer operations, tank cleaning, production processes, degressing operations, waste water treatment operations, sludge handless and the supposed during transfer operations, tank cleaning, production processes, degressing operations, waste water treatment operations, sludge handless and the supposed during transfer operations, tank cleaning, production processes, degressing operations, waste water treatment operations, sludge handless are treatment operations, sludge handless are treatment operations, sludge handless are treatment operations.	03 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coul	04 NARRATIVE DESCRIPTION		
ground tanks and lines also pose a potential threat. No soil contamination has been observed.  O1  G. DRINKING WATER CONTAMINATION O2  OBSERVED (DATE:)  O4 NARRATIVE DESCRIPTION  As per the ground water discussion above, the aquifer, which is a drinking water source, could become contaminated.  O1  H. WORKER EXPOSURE/INJURY O2  OBSERVED (DATE:)  O4 NARRATIVE DESCRIPTION  Workers could be exposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handless and the processes of	03 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coulsite is secure.	04 NARRATIVE DESCRIPTION  Id contract workers if improperly handled. The	general population would not b	e affected as the w
O3 POPULATION POTENTIALLY AFFECTED: 20,000+ O4 NARRATIVE DESCRIPTION  As per the ground water discussion above, the aquifer, which is a drinking water source, could become contaminated.  O1 88 H. WORKER EXPOSURE/INJURY O2 OBSERVED (DATE: POTENTIAL ALLECTION AND ALLECTION O4 NARRATIVE DESCRIPTION  Workers could be exposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handless and the supposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handless and the supposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handless and the supposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handless and the supposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handless and the supposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handless and the supposed during transfer operations.	O3 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coulsite is secure.  O1  F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35 04	04 NARRATIVE DESCRIPTION  Id contract workers if improperly handled. The	general population would not b	e affected as the w
As per the ground water discussion above, the aquifer, which is a drinking water source, could become contaminated.  O1	O3 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coulsite is secure.  O1  F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35 (Acres)  The presence of steel and concrete underground tanks suggests the	04 NARRATIVE DESCRIPTION  Id contract workers if improperly handled. The  02 □ OBSERVED (DATE:)  I NARRATIVE DESCRIPTION  at site soils may be contaminated (if these stores)	general population would not b	e affected as the w
03 WORKERS POTENTIALLY AFFECTED: All 04 NARRATIVE DESCRIPTION  Workers could be exposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handle	O3 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coulsite is secure.  O1  F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35 (Acres)  The presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat.	04 NARRATIVE DESCRIPTION  Id contract workers if improperly handled. The  02 □ OBSERVED (DATE:)  If NARRATIVE DESCRIPTION  Interest site soils may be contaminated (if these storemination has been observed.	general population would not b  POTENTIAL  age units were breached). Tran	e affected as the war ALLEGED
03 WORKERS POTENTIALLY AFFECTED: All 04 NARRATIVE DESCRIPTION  Workers could be exposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handle	O3 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coulsite is secure.  O1  F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35 (Acres)  The presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat.	04 NARRATIVE DESCRIPTION  Id contract workers if improperly handled. The  02 □ OBSERVED (DATE:)  INARRATIVE DESCRIPTION  Install site soils may be contaminated (if these storemination has been observed.  02 □ OBSERVED (DATE:)  04 NARRATIVE DESCRIPTION	general population would not b  POTENTIAL  rage units were breached). Tran	e affected as the war ALLEGED
Workers could be exposed during transfer operations, tank cleaning, production processes, degreesing operations, waste water treatment operations, sludge handle	O3 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coulsite is secure.  O1 ■ F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35 (Acres)  The presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat.	04 NARRATIVE DESCRIPTION  Id contract workers if improperly handled. The  02 □ OBSERVED (DATE:)  INARRATIVE DESCRIPTION  Install site soils may be contaminated (if these storemination has been observed.  02 □ OBSERVED (DATE:)  04 NARRATIVE DESCRIPTION	general population would not b  POTENTIAL  rage units were breached). Tran	e affected as the war ALLEGED
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	O3 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coulsite is secure.  O1  F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35 (Acres)  The presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of Steel and Contains of the Steel a	04 NARRATIVE DESCRIPTION  Id contract workers if improperly handled. The  02 □ OBSERVED (DATE:)  In NARRATIVE DESCRIPTION  In state soils may be contaminated (if these storemination has been observed.  02 □ OBSERVED (DATE:)  04 NARRATIVE DESCRIPTION  In drinking water source, could become contaminated of the second contaminated (if these storemination has been observed.	general population would not be POTENTIAL age units were breached). Transported POTENTIAL	e affected as the war ALLEGED after operations at a
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03 POPULATION POTENTIALLY AFFECTED: 20,000+ 04 NARRATIVE DESCRIPTION	O3 POPULATION POTENTIALLY AFFECTED: Facility employees  Several wastes, the organic solvents, are skin absorbable and coulsite is secure.  O1  F. CONTAMINATION OF SOIL  O3 AREA POTENTIALLY AFFECTED: 35 (Acres)  The presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the presence of steel and concrete underground tanks suggests the ground tanks and lines also pose a potential threat. No soil contains of the ground water discussion above, the aquifer, which is a contain the presence of the ground water discussion above, the aquifer, which is a contained to the presence of the ground water discussion above, the aquifer, which is a contained to the ground water discussion above, the aquifer, which is a contained to the ground water discussion above, the aquifer, which is a contained to the ground water discussion above, the aquifer, which is a contained to the ground water discussion above, the aquifer, which is a contained to the ground water discussion above, the aquifer, which is a contained to the ground water discussion above, the aquifer which is a contained to the ground tanks are ground tanks and tanks are ground tanks are ground tanks and tanks are ground tanks are ground tanks and tanks are ground tanks.	04 NARRATIVE DESCRIPTION  Id contract workers if improperly handled. The  02  OBSERVED (DATE:)  NARRATIVE DESCRIPTION  at site soils may be contaminated (if these storemination has been observed.  02  OBSERVED (DATE:)  04 NARRATIVE DESCRIPTION  a drinking water source, could become contamination water source, could become contamination of the contamina	POTENTIAL  POTENTIAL  POTENTIAL  POTENTIAL  POTENTIAL  POTENTIAL  waste water treatment operation	e affected as the w □ ALLEGED sfer operations at all □ ALLEGED



# POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

HAZ	ARDOUS CONDITIONS AND INCIDENTS (Conti	nued)		
01 🗖	J. DAMAGE TO FLORA	02 OBSERVED (DATE:)	□ POTENTIAL	□ ALLEGED
03	NARRATIVE DESCRIPTION			
	<b>.</b>			
	None.			
01 🗖	K. DAMAGE TO FAUNA	02 □ OBSERVED (DATE: )	□ POTENTIAL	□ ALLEGED
	NARRATIVE DESCRIPTION (Include name(s) of species)			
	None.			
	tara da asar a sa s	THE RESERVE OF THE PERSON OF T		
	L. CONTAMINATION OF FOOD CHAIN NARRATIVE DESCRIPTION	02 OBSERVED (DATE:)	D POTENTIAL	□ ALLEGED
03	NARVATIVE DESCRIPTION			
	None.			
01 🗖	M. UNSTABLE CONTAINMENT OF WASTES	02 OBSERVED (DATE:)	□ POTENTIAL	□ ALLEGED
03 P	OPULATION POTENTIALLY AFFECTED:	04 NARRATIVE DESCRIPTION		
	None.			
	None.			
01 🗖	N. DAMAGE TO OFF-SITE PROPERTY	02 □ OBSERVED (DATE: )	□ POTENTIAL	□ ALLEGED
	ARRATIVE DESCRIPTION	02	- TOTENHAL	- ALLEGED
	None.			
04 1	NARRATIVE DESCRIPTION	VTPS 02 D OBSERVED (DATE:)	■ POTENTIAL	
	NARRATIVE DESCRIPTION  facility has several NPDES discharge permits for storm sew			□ ALLEGED
The f				
The f	facility has several NPDES discharge permits for storm sew	vers and also discharges treated waste water to the	e Dayton municipal treatment	plant.
01 0 04 I	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION	vers and also discharges treated waste water to the	e Dayton municipal treatment	plant.
01 0 04 I	facility has several NPDES discharge permits for storm sew	vers and also discharges treated waste water to the	e Dayton municipal treatment	plant.
The f	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION None.	vers and also discharges treated waste water to the	e Dayton municipal treatment	plant.
The f	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION	vers and also discharges treated waste water to the	e Dayton municipal treatment	plant.
01 0 04 I	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION None.	vers and also discharges treated waste water to the	e Dayton municipal treatment	plant.
01 0 04 I	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A	vers and also discharges treated waste water to the	e Dayton municipal treatment	plant.
01 © 04 I	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A	vers and also discharges treated waste water to the	e Dayton municipal treatment	plant.
01 0 04 1 05 1 TOT	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A	vers and also discharges treated waste water to the O2 OBSERVED (DATE:)	e Dayton municipal treatment	plant.
01 0 04 1 05 1 TOT	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A None.	vers and also discharges treated waste water to the O2 OBSERVED (DATE:)	e Dayton municipal treatment	plant.
01 0 04 1 05 1 TOT	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A None.  AL POPULATION POTENTIALLY AFFECTED:	vers and also discharges treated waste water to the O2 OBSERVED (DATE:)  ALLEGED HAZARDS	POTENTIAL	plant.
01 0 04 1 05 1 TOT	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A None.  CAL POPULATION POTENTIALLY AFFECTED:  MMENTS  only potential threat to the general public would	O2 OBSERVED (DATE:)  ALLEGED HAZARDS  20,000+	POTENTIAL	plant.
01 0 04 1 05 1 TOT	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A None.  AL POPULATION POTENTIALLY AFFECTED:	O2 OBSERVED (DATE:)  ALLEGED HAZARDS  20,000+	POTENTIAL	plant.
01 0 04 1 05 1 TOT	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A None.  CAL POPULATION POTENTIALLY AFFECTED:  MMENTS  only potential threat to the general public would	O2 OBSERVED (DATE:)  ALLEGED HAZARDS  20,000+	POTENTIAL	plant.
The f	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A None.  AL POPULATION POTENTIALLY AFFECTED:  MENTS  only potential threat to the general public would extent of existing contamination and identification.	O2 OBSERVED (DATE:)  ALLEGED HAZARDS  20,000+  d be through the drinking water aquifer coion of sources is suggested.	POTENTIAL  pontamination. An investig	plant.
Of I	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A None.  CAL POPULATION POTENTIALLY AFFECTED:  MMENTS  only potential threat to the general public would	O2 OBSERVED (DATE:)  ALLEGED HAZARDS  20,000+  d be through the drinking water aquifer coion of sources is suggested.	POTENTIAL  pontamination. An investig	plant.
The f	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A  None.  AL POPULATION POTENTIALLY AFFECTED:  MMENTS  only potential threat to the general public would extent of existing contamination and identification.  JRCES OF INFORMATION (Cite specific reference)	O2 OBSERVED (DATE:)  ALLEGED HAZARDS  20,000+  d be through the drinking water aquifer or ion of sources is suggested.  Ces, e.g., state files, sample analyses, re	POTENTIAL  Pontamination. An investig	plent.  ALLEGED
The f	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A None.  AL POPULATION POTENTIALLY AFFECTED:  MMENTS  only potential threat to the general public would extent of existing contamination and identification.  JRCES OF INFORMATION (Cite specific references to investigation reports, site inspection summaries)	O2 OBSERVED (DATE:)  ALLEGED HAZARDS  20,000+  d be through the drinking water aquifer or ion of sources is suggested.  Ces, e.g., state files, sample analyses, re	POTENTIAL  Pontamination. An investig	plent.  ALLEGED
The f	P. ILLEGAL/UNAUTHORIZED DUMPING NARRATIVE DESCRIPTION  None.  DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR A  None.  AL POPULATION POTENTIALLY AFFECTED:  MMENTS  only potential threat to the general public would extent of existing contamination and identification.  JRCES OF INFORMATION (Cite specific reference)	O2 OBSERVED (DATE:)  ALLEGED HAZARDS  20,000+  d be through the drinking water aquifer or ion of sources is suggested.  Ces, e.g., state files, sample analyses, re	POTENTIAL  Pontamination. An investig	plent.  ALLEGED

ATTACHMENT B
VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPH LOG

VISUAL SITE INSPECTION SUMMARY

#### VISUAL SITE INSPECTION SUMMARY

GMC - HARRISON RADIATOR DAYTON, OHIO OHD 017958604

Date:

August 29, 1990

Facility Representatives:

John Ridd, Plant Engineering

Dick Mende, Manufacturing Engineering Robin Long, Environmental Section

Jane Rawlings, GMC Intern

Ken Scott, Maintenance Engineering

Larry Netsley, Plant Manager

PRC Inspection Team:

Jonathan Lewis Pete Zelinskas

Ohio EPA Inspection Team: Pat Willoughby

Photo Documentation:

Pete Zelinskas

Weather Conditions:

Overcast, slight drizzle, 70° F

Summary of Activities:

The visual site inspection began at 9:15 a.m. at the GMC Harrison Radiator facility at 300 Taylor Street, Dayton, Ohio. An initial meeting was held in a conference room in Building 3. Jonathan Lewis reviewed the purpose of the site visit and the overall RCRA facility assessment program with the facility representatives. John Ridd provided maps of the facility showing building locations, SWMU locations, and waste generation areas. He also provided spread sheets with information on the proposed SWMUs and hazardous waste generation and satellite accumulation areas. Mr. Ridd gave an overview of the facility's operations, the current status of the proposed SWMUs, and the facility's waste generation, storage, and disposal practices.

The site inspection began at 11:00 a.m. with a walk-through of the wastewater treatment facility (WWTF) located at the corner of Webster Street and Monument Avenue. This tour included an inspection of all indoor treatment units as well as the exterior holding and treatment tanks located west of the WWTF. The tour

followed the passage of wastewater from both general plant process operations and plating operations through the individual treatment phases. Treatment of plating wastewater in an exterior tank was observed. The sludge generated from the WWTF (SWMU No. 11) was seen in roll-off containers. The walk-through of the WWTF concluded at 12:15 p.m.

The walk-through of the production buildings began at 1:15 p.m. The weather at this time was sunny with a light wind and a temperature of about 80° F. The tour began in the garage area north of Building 4 (SWMU Nos.5, 6, and 13). The tour proceeded through Building 24 (SWMU No. 9) and into the still room (SWMU Nos. 2, 3, 4, and 15). The second floor of Building 24 (SWMU No. 8) was then observed. The inspection team proceeded outside of Building 12 along Webster Street (SWMU No. 1) and then to a truck unloading area south of Building 12 (SWMU No. 12). The spray paint area on the second floor of Building 12 (SWMU No. 19) was inspected as were degreaser units in Buildings 2, 7, 9, 22, and 24 (SWMU Nos. 17 and 18). The hazardous waste storage cage (SWMU No. 14) on the third floor of Building 24 was observed. This area is subdivided into four areas for different classes of hazardous wastes. Drums were observed in these areas. The tour continued to the former hazardous waste storage cage (SWMU No. 7) in Building 5, the former dirty Stoddard solvent storage tank (SWMU No. 16), the maintenance paint booth area in Building 10 (SWMU No. 19), and the plating area (SWMU No. 10).

The walk-through concluded at 3:45 p.m. A brief exit interview was held with OEPA and facility representatives. The PRC inspection team left the facility at 4:00 p.m.

PHOTOGRAPH LOG



Photo No.: 1 SWMU No.: 1
Date: 08/29/90 Time: 14:00 Direction Facing: N
Description/Comments: Solvent storage tank area showing excavation area west of Building 12.



Photo No.: 2 SWMU No.: NA
Date: 08/27/90 Time: 13:40 Direction Facing: N

Description/Comments: Still room showing red chlorinated solvent sample tanks and green Stoddard solvent stills.



Photo No.: 3 SWMU No.: NA
Date: 08/27/90 Time: 13:40 Direction Facing: SE

Description/Comments: Still room showing red chlorinated solvent sample tanks on left and Stoddard solvent sample tanks on right.



Photo No.: 4 SWMU No.: NA
Date: 08/27/90 Time: 13:40 Direction Facing: E

Description/Comments: Northern portion of still room showing piping and trench.



Photo No.: 5 SWMU No.: 5, 6, and 13

Date: 08/27/90 Time: 13:25 Direction Facing: E

Description/Comments: Garage area north of Building 4 showing waste tank and sump; Mad

River levee borders garage area to the north.



SWMU No.: 5, 6, and 13 Photo No.: 6

Date: \_\_\_\_08/27/90\_\_

Time: 13:25 Direction Facing: NE
Garage area north of Building 4 showing Safety Kleen truck and waste Description/Comments:

tank; Mad River levee borders garage area to the north.



Photo No.: 7 SWMU No.: 7
Date: 08/27/90 Time: 15:00 Direction Facing: S
Description/Comments: Former hazardous waste storage cage in Building 5.



Photo No.: 8 SWMU No.: 8
Date: 08/27/90 Time: 14:50 Direction Facing: N
Description/Comments: Former hazardous materials storage cage area on second floor of Building 24.



Photo No.:  $\frac{9}{08/27/90}$ Description/Comments:

SWMU No.:

Time: 13:35 Direction Facing: N
Former hazardous materials staging area adjacent to northern wall of Building 24; area currently used to store nonhazardous scrap materials and machine tailings.



Photo No .: 10 SWMU No.: 10

Time: 15:30 Direction Facing: S
Drains in plating area leading to plating waste sump in Building 9. Date: 08/29/90Description/Comments:



Photo No.: 11 SWMU No.: 11

Date: 08/27/90 Time: 11:15 Direction Facing: N

Description/Comments: Wastewater treatment plant - dissolved air flotation unit on second floor.



Photo No.: 12 SWMU No.: 11

Date: 08/27/90 Time: 11:20 Direction Facing: SW

Description/Comments: Wastewater treatment plant - plating waste treatment tank No. 2; flocculation treatment in progress.

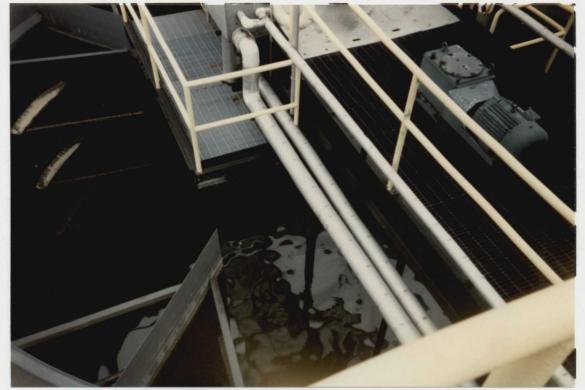


Photo No.: 13 SWMU No.: 11

Date: 08/27/90 Time: 11:25 Direction Facing: N

Description/Comments: Wastewater treatment plant - plating waste treatment tank No. 1.



Photo No.: 14 SWMU No.: 11 Date: 08/27/90 Time: 11:30 Direction Facing: W

Description/Comments: Wastewater treatment plant - general waste holding tank No. 1 during filling.



Photo No.: 15 Date: 08/27/90 SWMU No.: Time: 11:35 Direction Facing: N
Wastewater treatment plant - API oil separator on second floor.

Description/Comments:

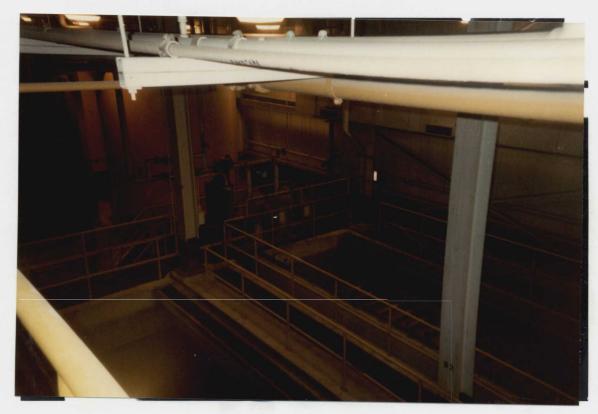


Photo No.: 16 S Date: 08/27/90 Description/Comments: SWMU No.:

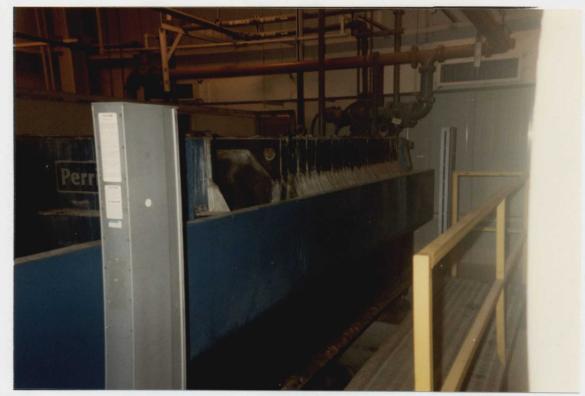


Photo No.: 17 Date: 08/27/90 SWMU No.: 11:45 Direction Facing: SW Time: \_ Wastewater treatment plant - sludge filter press. Description/Comments:



Photo No.:  $\frac{18}{08/27/90}$  S Date:  $\frac{08/27/90}{08/27/90}$  Description/Comments: SWMU No.:

Time: 11:50 Direction Facing: SE

Wastewater treatment plant - sludge accumulation area showing roll-off containers.



Photo No.: 19 Date: 08/29/90 Description/Comments:

SWMU No.:

Direction Facing: \_ 11:55

Time: 11:55 Direction Facing: E
Wastewater treatment plant - bulk chemical unloading area showing collection trench and roll-off container; Webster Street is in

background.

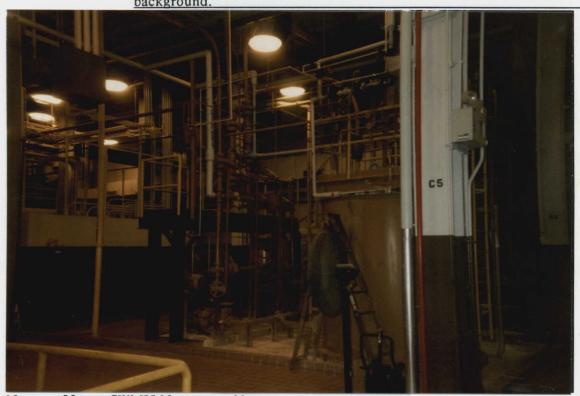


Photo No.: 20 SWMU No.: 11

Direction Facing: Date: 08/27/90

Time: 12:00 Direction Facing: SW
Wastewater treatment plant - bulk chemical storage area showing lime Description/Comments:

slurry tank.



Photo No.: 21 SWMU No.: 12

Date: 08/27/90 Time: 14:10 Direction Facing: S

Description/Comments: Spill interceptor south of Building 12 adjacent to Building 27; NPDES outfall 011 is in background next to Pitt Street.



Photo No.: 22 SWMU No.: 14

Date: 08/27/90 Time: 14:50 Direction Facing: S

Description/Comments: Hazardous waste storage cage - paint sludge storage area showing dividers and metal strip berm surrounding area.



Photo No.:  $\frac{23}{08/27/90}$  S

SWMU No.: 14
Time: 14:50 Direction Facing: S

Hazardous waste storage cage - alkaline and miscellaneous storage area Description/Comments:

showing ramp at entrance.



SWMU No.:

MU No.: 14
Time: 14:50 Direction Facing: S
Hazardous waste storage cage - chlorinated solvent storage area. Photo No.: 24 S Date: 08/27/90

Description/Comments:



Photo No.: 25 SWMU No.: 14

Date: 08/27/90 Time: 14:55 Direction Facing: S

Description/Comments: Hazardous waste storage cage - ignitable waste liquid storage area.



Photo No.: 26 SWMU No.: 14
Date: 08/27/90 Time: 14:55 Direction Facing: SE
Description/Comments: Hazardous waste storage cage showing all four storage areas.



Photo No.: 27 Date: 08/27/90 SWMU No.: Time: 14:55 Direction Facing: S Hazardous waste storage cage - drums in waste paint storage area. Description/Comments:



SWMU No.: Time: Photo No.: 28 Date: 08/29/90

MU No.: 17
Time: 14:40 Direction Facing: S
Degreasing unit containing 1,1,1-trichloroethane in Building 22. Description/Comments:



Photo No.: 29 SWMU No.: 17
Date: 08/27/90 Time: 14:40 Direction Facing: N
Description/Comments: Degreasing unit containing 1,1,1-trichloroethane in Building 22.

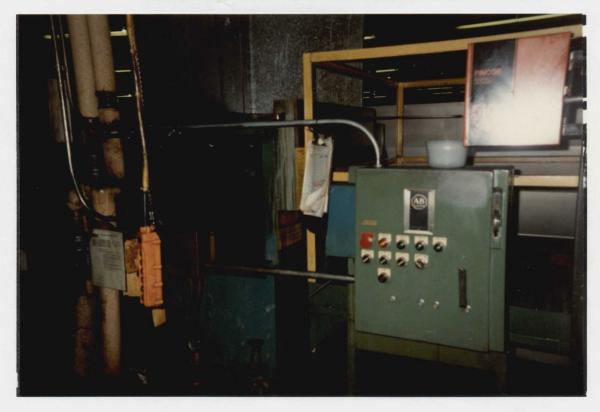


Photo No.: 30 SWMU No.: 17
Date: 08/27/90 Time: 15:20 Direction Facing: N
Description/Comments: Elevated degreasing unit containing 1,1,1-trichloroethane in Building 9.



Photo No.: 31 Date: 08/27/90 SWMU No.: Time: Time: 15:50 Direction Facing: N

Quality assurance laboratory - drum on right contains used 1,1,1trichloroethane from degreasing operation; compressor in foreground. Description/Comments:



SWMU No.: Photo No.: 32 Date: 08/27/90

Time: 14:45 Direction Facing: E

Degreaser unit containing Solvo-Clean in Building 24. Description/Comments:



Photo No.: 33 Date: 08/27/90 SWMU No.: 17 Time: 15:45 Direction Facing: N
Degreaser unit containing Solvo-Clean in Building 7. Description/Comments:



Photo No.: 34 Date: 08/27/90 SWMU No.: 18 14:40

Direction Facing: Time:

Description/Comments: Safety-Kleen cleaning unit containing petroleum naphtha in Building 22.



Photo No.: 35 Date: 08/27/90 SWMU No.: Time: 14:40 Direction Facing: E
Paint sludge accumulation drum in Building 12. Description/Comments:



SWMU No.: Time: Photo No.: 36 Date: 08/27/90

Time: 14:45 Direction Facing: SW Paint sludge accumulation unit on second floor of Building 12.

Description/Comments:



Photo No.: 37 Date: 08/27/90 SWMU No.: 14:45

Time: 14:45 Direction Facing: E
Paint sludge dump area on second floor of Building 12; wheelbarrow used Description/Comments: to transport sludge from accumulation unit to drum one floor below.



Photo No.: 38 Date: 08/27/90 SWMU No.:

Time: 15:10 Direction Facing: NE

Room adjacent to maintenance paint booth area in Building 10 showing Description/Comments: clean paint thinner drum on left and dirty thinner drum on right.

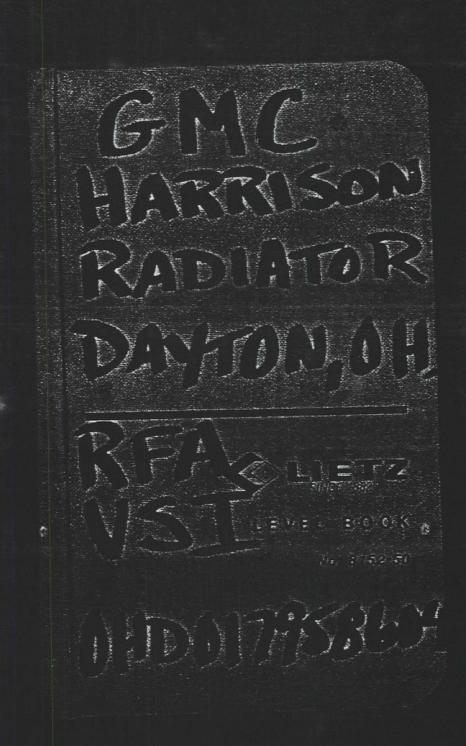


Photo No.: 39 SYDate: 08/27/90 Description/Comments:

SWMU No.: 19
Time: 15:10 Direction Facing: E

SE Maintenance paint booth area in Building 10 showing paint filters along back wall.

ATTACHMENT C
VISUAL SITE INSPECTION FIELD NOTES



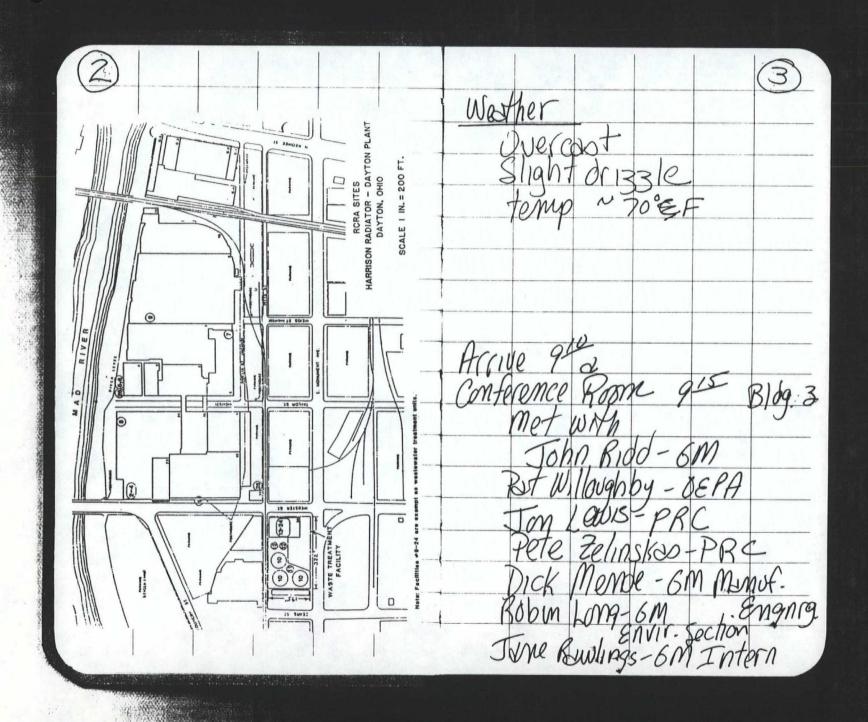
## INDEX

Property of	PRC Environmental
,	Munugement, Inc. 644 Linn St. #620
Address	644 Linn St. #620
	Cincinnati, OH 45203
Telephone	513/241-0149

GMC - Harrison Padiator DIV.
Dayton, OH Visual Site Inspection OHD 017958604 Project Manager: Jon Lewis Project No.: 009-COSO87 USI Dute: Aug. 29, 1990 PRC Inspectors:

This Book is manufactured of a High Grade 50% Rag Ledger Paper having a Water Resistant Surface, and is sewed with Nylon Water-proof Thread.

GMC Representative: Mr. John Ridd Plant Empineering 6MC-Harrison Radiator Div. IS BIMOSH 300 Taylor St. Dayton, OH 45401 513/455-4408 OEPA Representative Mr. Pet Willoughby OEPA - SW District 40 S. Main St. Dayton, OH 15402 119



Ken Scott-Munt Engring Larry Notsley-Plant Mgr. 6m Meeting: facility map-mcl. wester generated Photographs to be taken
by Pete Zelinskasusing
a Viviter 75 44 camera
and Fujicdor Super
H6200 print film Safety Kleen uses Stooderd sofrent VMEP Naghtho 19 ni Roble 2001 SK takes with them. contracted to clean units don't accomplate Throughout the plant

6M lease cleaning units,

SK comes > 1/week to

remove solvent, pump

then to HW storage cage
ment wint booth- work degressers - weeks degressers - was to removed to age directly WWTF Map-Sludge generated SWMU #9 Ilso w portes #1,3 hove clean solvent
Not RCRA-reg. units
#1- new solvent
#3-01stilled solvent

bulk chlor. solvent system.
Shut down in 1987

trying to decrease use of
Chlor, solvents
Sofety-kleen takes chlor. solv.
CWM
""" #26 stored similar solvents #1,3 registered with state
fire manshall, UST program
Still om RCRA permit
trying to get them off
OEPA not responding to
closure, changes to Pt. A.

#1,3 clean, emply #1 taken out, removed #3 mstill room, in concrete Chlor. solvents come un Orums, no bulk delivery Clean closure stas.

OEPA requires detection levels

for soil on 600 or do

NEX assessment

OEPA policy"

MCLs for runsete standards #2,4,5 cleamed out #26 Still in service

Stodard solvent was ereviously used for parts
cleaning, replaced by
Sefety Kleen

only solvent exempt if it is
to be recycled

#38,29 - first exempt,
1986- removed exempten

not subject of change until 88 1987- took system out of Service #28,29 not added to permit
but included in closure plan
functionally the same
clean tanks not included on
UST permit with ohio

#26 not in service since 1981 been classed out Has unloading ones for bulk no spills deliveries never had HW exempt from RCRA only 1 active unit for storage

= #27 90-day

untend to close every thing

generator only now for chlor. solvents

production punt operation punt comes in bulk punt reformulated so ac not to have Cr by oct 1990 punt stored in 2 tanks

So Bld 12 shill room has tank w/ soluent-based, Cr punt will closed, not view use up pount in tanks s

of Blog 12 new formula plant punt will use some panks Meint. pund booth - Bidg 10 Gen 2 - use toluene do thinner "3 - Cr in paint (18) Solvo Clean- hoon't been generated yet used for parts cleaning non-chlorinated Runt strip sludge clkuline cleaner, strips
punt, cr-Door sludge
from hangers wed to
hang compressors Plating bonk bottomo-intermittent Cr both, part of Zn-plating WWTP sludge-dewatered, occum in roll-off boxes, taken by Metropoliton Envir. taken to CWM in Adams Ctr.

HW Andfill us Ft. Wyno, Ind. must request process
descriptions on writing
whote flow descriptions
request:
previous bulk stodand
solvent, system
chlor-solvent
Send letter to TRIDO 1988 Still room "spill"-not a spill tanks were lock-tested on tested: SWMV #1 possed
#4 "
#3 folled/borden/une
#2 foiled/

mstelled 4 600 mon wells for 64M 1988 report GW flow Nemas WNW #1 not BCRA but 1975 was overfilled
residue of perchlor m soit
Soil removed,
samples showed some
residual perchlor m soil no nearley residences 6M took over site in 1920s ho some present work since 50's

Air permits from 7/89
Pt. A fairly accurate
NPDES permit for
stormwater run-off Most water flows S

Collected in sever Under
Pitts St., flows W, NW

discharges to river

I from Bld 24 to

river

Sher under Monitor outside

Blog 27 (001)

004 fr.

#011 9/2 Blog 27
004 Webster St.
003 6 blogs. Keowe St.
001 out Blog 24 penceo, potrolled N. of plant 11/02. Accive weste call

port plating woote, which

o pumped to as separate

transment tenks)

arrives in sump (wet well)

building femied on in

on wobster en E. main floor - chem trestant CPI oil treet. seps.
Oil to stor. tonk in bosement
sent to reclaimer water flows to holding tonks

plating tank - Sludges to holding tank conditioned, dewatered, goes to Adam Conter 2n Cr removed

2 plating waste tanks

all treating except sand
filters - discharge

140,000 gall.

wet well -> bootch holding tanks

580,000 gall cap. WUTP Styled 5/80 ock, gravel cover barber

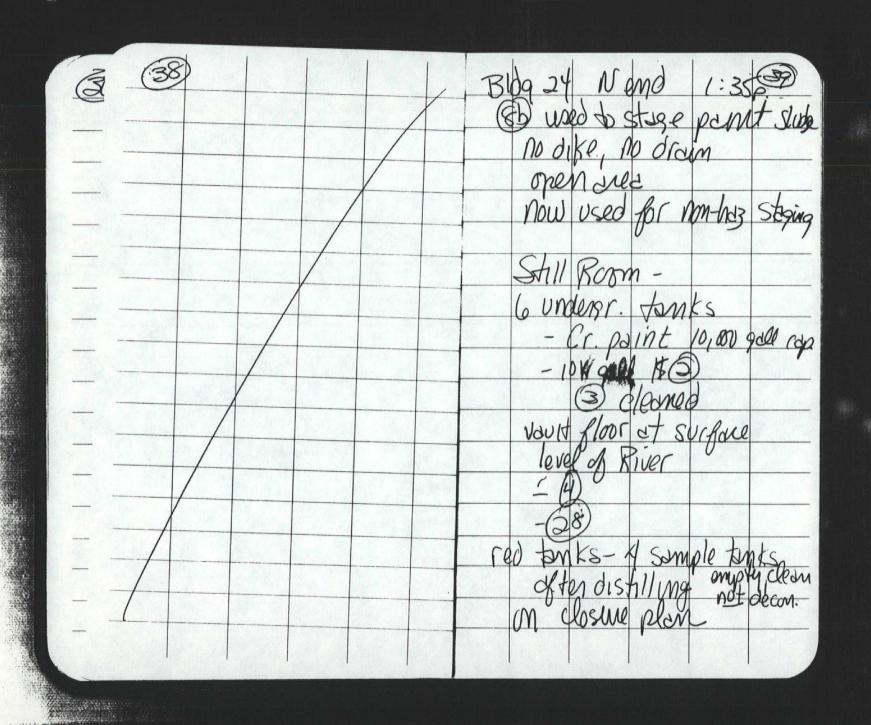
holding tanks >
20 flow 4 chem treat tanks
Floor drawns no dike horms

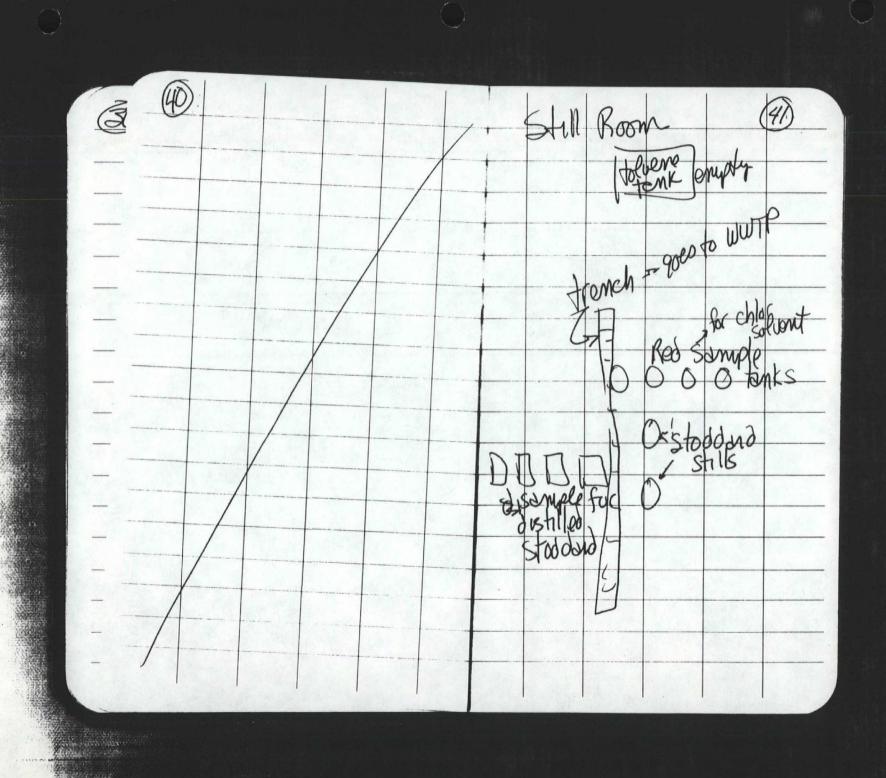
> wet well

- dissolved all flotation units > pH old, pmk > sand filters Some filter > u sed some goes w/ Sludge + Scum > Ime -> Bilter presses, drop with form wolfler with run-off boxos Sludge room -15 403 roel-of locytes has trench to wet well

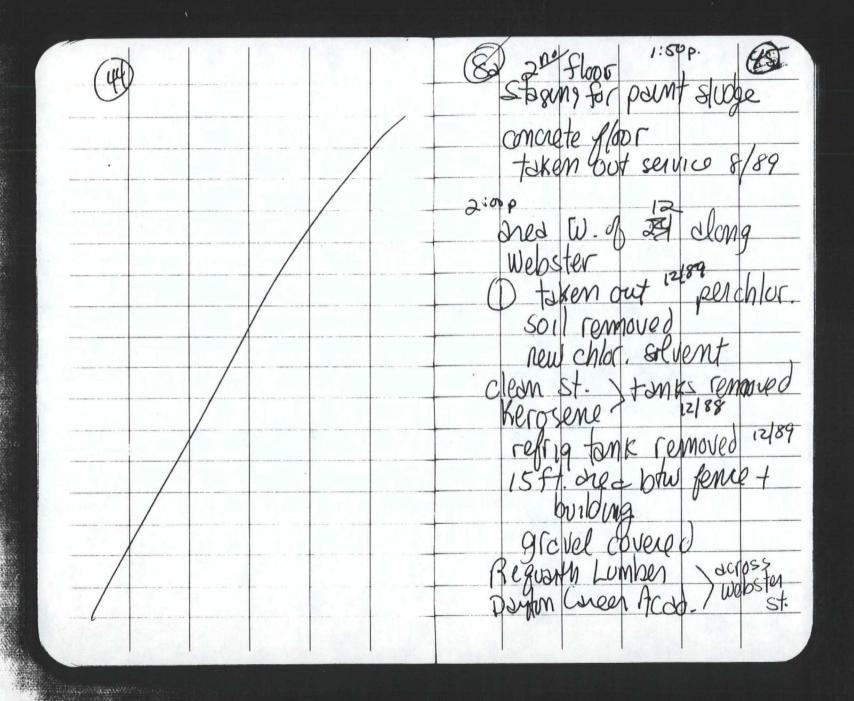
a Ime, H2SO4, wet polymon derrive in bulk in and 8. of blog, has trenches w interceptor unloading dum duez bacment. skimmed of holding tink ime sorase 5ft wherm Mule some corrosion, cracks in floor (tiled) W 12:15 F

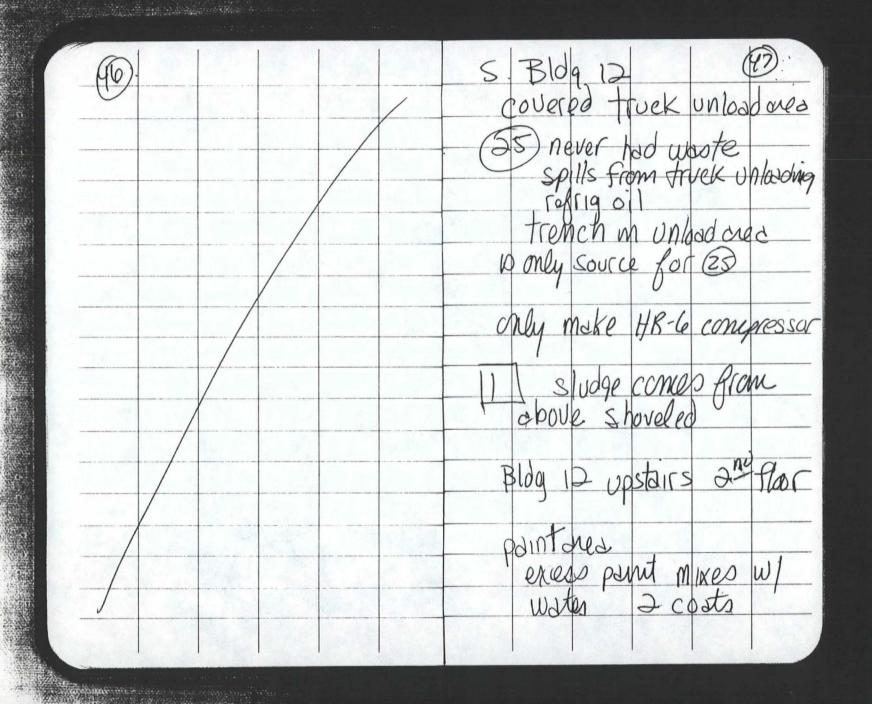
Arrive buardhouse 1:150
Westher. Sunny light wind
temp. 75-80°F
H516, 26
N. Blog 4 2,000 gell temk on side (5)
Such receiving and Sump
wherepro (26
Sloped to distins
lined with tremeters food
Who 26
pumped from 26 to warr
to level for Mac River





totally enclosed
filed w/ Ort room to 2 steps below num level of Blog 24 Solvent odor in NE corner Showled contime, soil





water soes to warp (99)
Skimmings, bottoms of
the wash goes to [1]
paint sludge now goes to
Mich. Disposal (Door)
Wayne, MI S.K. cleaning units 15-20 in plant 5) 2 degressers on Solvo-clean ser Carrollan com Ros-Rec.

2) scepts every drummes Star

4 chedo

Water leak teoteo

2/3" metal strip kerm

PVC sealant

Concrete sealeo

25-30' deep

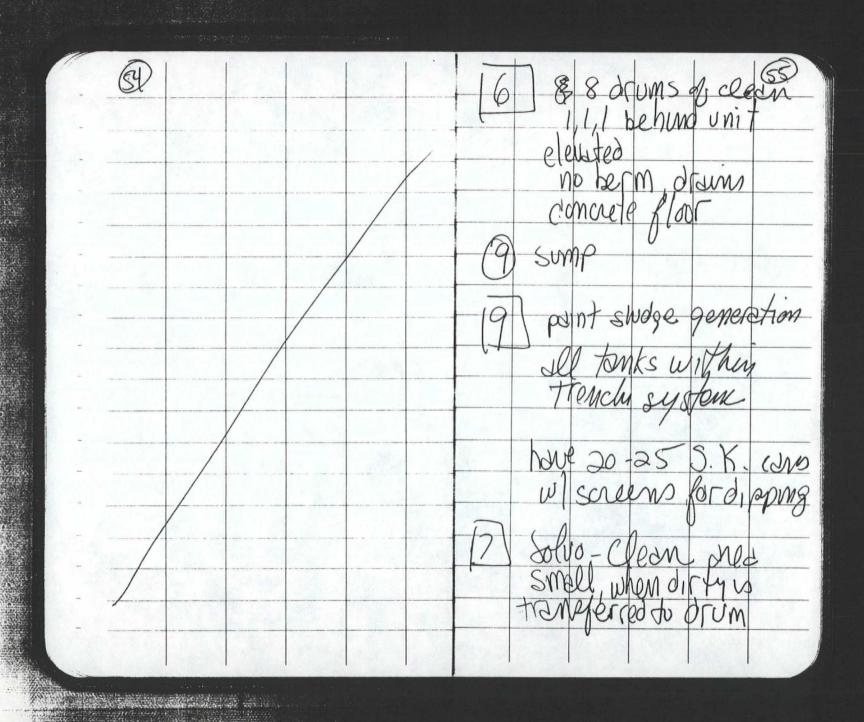
Mignitable waste liguids

Chlor. solvento

clkalines-misc

paint-sludge from various cleaning operations
paint-studge only hos
drain-obb for excess water
so warp

used up until 8/89 3)
concrete berne around 42
212" metal berne also pumped to still room
cleaned
not tested
Sits under trush compactor Munt Deunt booth head gabic Gilter on back of booth, are drummed will continue to use Cr to 2 gun, sprayed poured und



drum on right 50

b 1,1,1 takes long

time to fill from

lab QA, residue test (50) - question of ust overlap state fire Marshall & EPA enu Nisit at 4:000 check w EPA re: copy of field notes for



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY SEP 11 1995 REGION 5

230 SOUTH DEARBORN ST. CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

AUG 2 1 1990

5HR-12

Mr. John Ridd General Motors Corporation Harrison Raditor Division 300 Taylor Street Dayton, Ohio 45401

> Re: Visual Site Inspection General Motors Corporation OHD 017 958 604

Dear Mr. Ridd:

The United States Environmental Protection Agency (U.S. EPA) Region V will conduct a Preliminary Assessment and Visual Site Inspection (PA/VSI) at the referenced facility. This inspection is conducted pursuant to the Resource Conservation and Recovery Act, as amended (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA). The assessment requires identification and systematic review of all solid waste streams at the facility. The objective of this assessment is to determine whether or not releases of hazardous wastes or hazardous constituents have occurred or are occurring at the facility which require further investigation. This analysis will provide information to establish priorities for subsequent remedial investigations.

The visual site inspection of your facility is to verify the location of all solid waste management units (SWMUs) and areas of concern to make a cursory determination of their condition by visual observation. The VSI supplements and updates data gathered during a preliminary file review. During this site visit, no samples will be taken. A future sampling visit to ascertain if releases of hazardous waste or constituents have occurred, may be required at a later date.

Assistance of some of your personnel may be required in reviewing solid waste flow(s) or previous disposal practices. The site visit is to provide a technical understanding of the present and past waste flows and handling, treatment, storage, and disposal practices. Photographs of the facility are necessary to document the condition of units at the facility and the waste management practices used.

The VSI has been scheduled for August 29, 1990. The inspection team will consist of Jon Lewis and Nancy Zeller of PRC Environmental Management, Inc., contractors for the U.S. EPA.

Representatives of the Ohio Environmental Protection Agency may also be present. Your cooperation in admitting and assisting them while on site is appreciated.

The U.S. EPA recommends that personnel who are familiar with present and past manufacturing and waste management activities be available during the VSI. Access to any relevant maps, diagrams, hydrogeologic reports, environmental assessment reports, sampling data sheets, manifests and/or correspondence is also necessary, as such information is needed to complete the PA/VSI. Enclosed is a summary of our current knowledge and data gaps.

If you have any questions, please contact Kevin Pierard at (312) 886-4448 or Sheri Bianchin at (312) 886-4446. A copy of the Preliminary Assessment/Visual Site Inspection Report, excluding the conclusions portion may be made available upon request.

Sincerely yours,

Kevin M. Pierard, Chief

Sheri J. Granchi

OH/MN Technical Enforcement Section

Enclosure

cc: Pat Willoughby, OEPA - SWDO

Site Inspector

Dave Sholtis, OEPA - CDO

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The U.S. EPA recommends that personnel who are familiar with present and past manufacturing and waste management activities be available during the VSI. Access to any relevant maps, diagrams, hydrogeologic reports, environmental assessment reports, sampling data sheets, manifests and/or correspondence is also necessary, as such information is needed to complete the PA/VSI. Enclosed is a summary of our current knowledge and data gaps.

If you have any questions, please contact Kevin Pierard at (312) 886-4448 or Sheri Bianchin at (312) 886-4446. A copy of the Preliminary Assessment/Visual Site Inspection Report, excluding the conclusions portion may be made available upon request.

Sincerely yours,

Kevin M. Pierard, Chief OH/MN Technical Enforcement Section

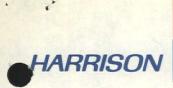
Enclosure

cc: Pat Willoughby, OEPA - SWDO Site Inspector

Dave Sholtis, OEPA - CDO

5HR-12:KPIERARD:ao:6-4448:8/21/90VSIFRM5.LTR

447	TYP	AUTH.	IL/IN TECH. ENF. SEC.	MI/WI TECH. ENF. SEC.	OHIMN TECH. ENF. SEC.	IL/MI/WI ENF. PROG. SECTION	IN/MN/OH ENF. PROG. SECTION	RCRA ENF. BR. CHIEF	O.R. A.D.D.	WMD DIR
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Harrison Radiator Division of General Motors Corporation P.O. Box 824 Dayton, Ohio 45401-0824

March 14, 1986

RCRA Activities Region V P.O. Box A3587 Attention: ATKJG Chicago, Illinois 60690

SUBJECT: GMC Harrison Radiator Division-Dayton Plant

U.S. EPA ID #OHD017958604

Dear Madam or Sir:

Enclosed please find a "Certification Regarding Potential Releases From Solid Waste Management Units" for the GMC Harrison Radiator Division - Dayton Plant.

Please contact me at (513) 455-4509 if I can be of assistance.

Sincerely,

Bruce L. Powell Plant Engineering

Bruce of Powell

BLP/1bc

Enclosure



# CERTIFICATION REGARDING POTENTIAL RELEASES FROM SOLID WASTE MANAGEMENT UNITS

FACILITY EPA I.D. NO		OHD017958604		vision, North Pl	
OCATION (		Dayton			
	TATE:	Ohio		*	
3	IAIE: _	OllIO			
closed)	at your	the following facility? NOTE	- DO NOT INC	management unit	s (existing or WASTE UNITS
			YES	NO	
· Landi	fill ace Impou	ndme nt		X	
· Land	Farm	Traine ITC	<u>-</u>	x x x	
· Incir	e Pile nerator			<u>x</u> x	
		(Above Ground) (Underground)		<u>x</u> x	
° Conta		rage Area	Х	75-1	
° Waste	ewater Tr	eatment Units	x	<u>x</u>	
	sfer State Recycli	ng Operations	x	<u>X</u>	
	Treatme	nt, Detoxifica	tion	X	
provide of in ea would be RCRA. A disposed of each	a descri ach unit. e conside Also incl d of and unit and	ption of the w In particulared as hazardo ude any availa the dates of o	wastes that we ar, please for ous wastes or able data on odisposal. Plecity, dimension	tems in Number 1 ere stored, trea tus on whether o hazardous const quantities or vo ease also provid ons and location	ted or dispose r not the wast ituents under lume of wastes e a descriptio
See A	Attachmen	ts.			
The second					
			1 37 39 74	The state of the s	

NOTE: Hazardous wastes are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

For the units noted in Number 1 above and also those hazardous waste up in your Part A application, please describe for each unit any data available on any prior or current releases of hazardous wastes or constitue to the environment that may have occurred in the past or may still be occurring.  Please provide the following information  a. Date of release b. Type of waste released c. Quantity or volume of waste released d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)  Not Applicable.  In regard to the prior or continuing releases described in Number 3 ab please provide (for each unit) any analytical data that may be availab which would describe the nature and extent of environmental contaminat that exists as a result of such releases. Please focus on concentrati hazardous wastes or constituents present in contaminated soil or groun Not Applicable.		
a. Date of release b. Type of waste released c. Quantity or volume of waste released d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)  Not Applicable.  In regard to the prior or continuing releases described in Number 3 ab please provide (for each unit) any analytical data that may be availab which would describe the nature and extent of environmental contaminat that exists as a result of such releases. Please focus on concentrati hazardous wastes or constituents present in contaminated soil or groun Not Applicable.	able to the	our Part A application, please describe for each unit any data avail- on any prior or current releases of hazardous wastes or constituents ne environment that may have occurred in the past or may still be
b. Type of waste released c. Quantity or volume of waste released d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)  Not Applicable.  In regard to the prior or continuing releases described in Number 3 ab please provide (for each unit) any analytical data that may be availab which would describe the nature and extent of environmental contaminat that exists as a result of such releases. Please focus on concentrati hazardous wastes or constituents present in contaminated soil or groun Not Applicable.	Pleas	se provide the following information
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In regard to the prior or continuing releases described in Number 3 ab please provide (for each unit) any analytical data that may be availab which would describe the nature and extent of environmental contaminat that exists as a result of such releases. Please focus on concentrati hazardous wastes or constituents present in contaminated soil or groun Not Applicable.	N	ot Applicable.
Not Applicable.		
	pleas	e provide (for each unit) any analytical data that may be available would describe the nature and extent of environmental contamination
	pleas which that	e provide (for each unit) any analytical data that may be available would describe the nature and extent of environmental contamination exists as a result of such releases. Please focus on concentrations
	pleas which that hazar	e provide (for each unit) any analytical data that may be available would describe the nature and extent of environmental contamination exists as a result of such releases. Please focus on concentrations dous wastes or constituents present in contaminated soil or groundward.
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	pleas which that hazar	e provide (for each unit) any analytical data that may be available would describe the nature and extent of environmental contamination exists as a result of such releases. Please focus on concentrations dous wastes or constituents present in contaminated soil or groundward.
I certify under penalty of law that this document and all attachments	pleas which that hazar	e provide (for each unit) any analytical data that may be available would describe the nature and extent of environmental contamination exists as a result of such releases. Please focus on concentrations dous wastes or constituents present in contaminated soil or groundward.

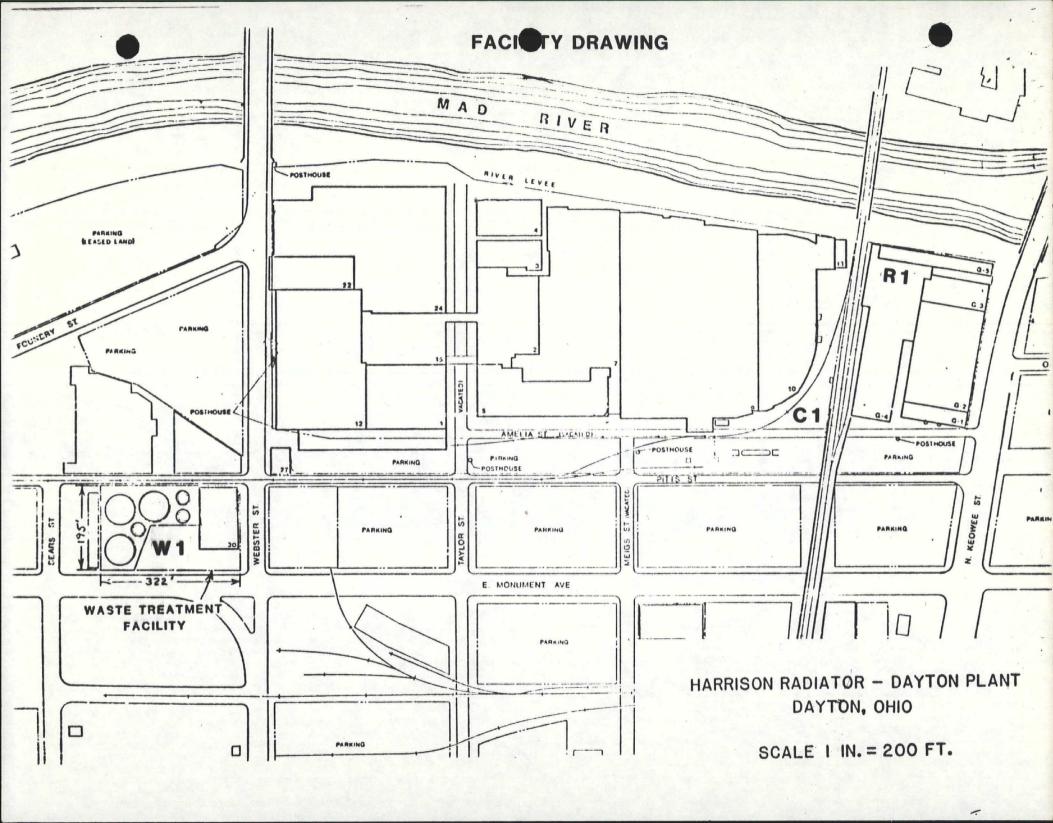
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the submittal is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (42 U.S.C. 6902 et seq. and 40 CFR 270.11(d))

Larry L. Netzley - Plant Manager-Dayton

Typed Name and Title

Signature

Jace



W1

THIS FACILITY BEGAN OPERATIONS IN MAY OF 1981. PROCESS WASTEWATERS ARE SEGREGATED IN THE MANUFACTURING PLANT INTO TWO WASTE STREAMS FOR TREATMENT (SEE FIGURE W1 FOR PROCESS DIAGRAM): PLATING WASTE AND GENERAL OILY WASTE. THE PLATING WASTE CONTAINS CHROMIUM, ZINC, AND TIN FROM THE ELECTROPLATING OPERATIONS. THE GENERAL OILY WASTE CONSISTS OF WASTE WATER CONTAINING WATER SOLUBLE COOLANTS AND OILY EMULSIONS WHICH RESULT FROM OR ARE ASSOCIATED WITH THE MACHINING OPERATIONS: ALKALINE SPRAY CLEANING, ELECTROCLEANING, AIRLESS PAINTING, MECHANICAL DEBURRING AND FLOOR CLEANING. NO CYANODIC PROCESSES OR PRODUCTS ARE USED IN ANY SEGMENT OF THE MANUFACTURING OPERATION.

PLATING WASTES ARE BATCH TREATED. HEXAVALENT CHROMIUM IS REDUCED WITH SODIUM METABISULFITE AT LOW PH TO THE TRI-VALENT SPECIES. SUBSEQUENT PH ADJUSTMENTS TO 8.5 - 9.0 WITH LIME PRECIPITATES THE METALLICS AS THEIR RESPECTIVE HYDROXIDES. FLOCCULANT POLYMER AIDS ARE ADDED TO ENHANCE SETTLEABILITY AND CLARIFICATION.

GENERAL OILY WASTES ARE SUBJECTED TO A GRAVITY SEPARATION STEP TO REMOVE FREE OIL WHICH IS CURRENTLY COLLECTED AND SOLD. EMULSIFIED OILS ARE TREATED IN A SEMI-CONTINUOUS SYSTEM CONSISTING OF BATCH COLLECTION AND EQUALIZATION FOLLOWED BY CHEMICAL DE-EMULSIFICATION USING LIME, ALUM AND POLYMERS. PHASE SEPARATION IS ACCOMPLISHED BY EMPLOYMENT OF THE DISOLVED AIR FLOATATION TECHNIQUE.

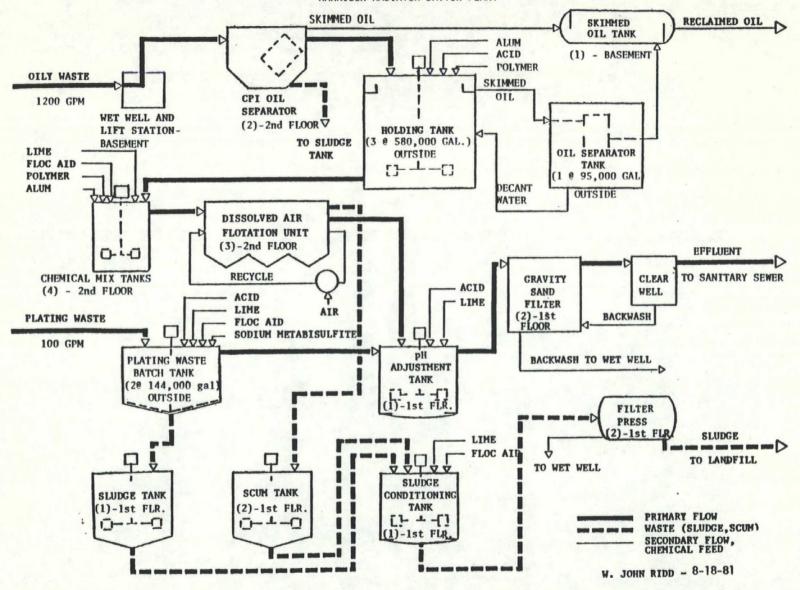
TREATED EFFLUENTS FROM THESE TWO TREATMENT SYSTEMS (PLATING AND GENERAL OILY WASTE) ARE COMBINED FOR EQUALIZATION AND PH ADJUSTMENT, IF REQUIRED, PRIOR TO GRAVITY SAND FILTRATION AND DISCHARGE TO THE CITY OF DAYTON SANITARY SEWER SYSTEM.

THE RESIDUAL METALLIC HYDROXIDE SLUDGE AND OILY WASTE SCUM AND SLUDGE ARE MIXED IN A SLUDGE CONDITIONING TANK WHERE LIME AND A FLOCCULANT AID POLYMER CAN BE ADDED TO ASSIST THE DEWATERING PROCESS AND CONTROL PH. THE COMBINED SLUDGE IS PUMPED TO ONE OF TWO PERRIN FILTER PRESSES EMPLOYING A DIATOMACEOUS EARTH PRE-COAT SYSTEM. THE RESULTANT FILTRATE IS RECYCLED TO THE INFLUENT END OF THE OILY WASTEWATER STREAM WHILE THE SLUDGE IS DISCHARGED INTO OPEN-TOP LUGGERS FOR TRANSPORT TO AN APPROVED OFF-SITE DISPOSAL FACILITY.

THE DAYTON PLANT WASTEWATER TREATMENT FACILITY CURRENTLY PROCESSES APPROXIMATELY 5,600,000 GAL./MO. OF GENERAL OILY WASTE AND APPROXIMATELY 1,000,000 GAL./MO. OF PLATING WASTE. THE DESIGNED MAXIMUM FLOWS ARE 1200 GPM OF GENERAL OILY WASTEWATER AND 100 GPM FOR THE PLATING WASTE. AFTER SLUDGE DEWATERING APPROXIMATELY 37 CUBIC YARDS PER MONTH OF A 35% SOLID CAKE WHICH IS SUITABLE FOR LANDFILL DISPOSAL IS GENERATED. THIS SLUDGE HAS BEEN GRANTED A TEMPORARY EXCLUSION BY THE USEPA.

SCHEMATIC FLOW DIAGRAM WASTE TREATMENT FACILITY

HARRISON RADIATOR-DAYTON PLANT



C1

GRINDING SLUDGES GENERATED FROM ALUMINUM, CAST IRON, AND STEEL MACHINING OPERATIONS ARE REMOVED FROM THE PLANT FLOOR AND PLACED INTO A 6 CUBIC YARD CONTAINER LOCATED AT AREA C-1 SHOWN ON THE FACILITY DRAWING. LIQUIDS AND MACHINE COOLANTS DRAIN TO THE GENERAL OILY WASTE LINES WHICH PUMPS TO THE HARRISON WASTEWATER TREATMENT UNIT. THE CONTAINERS ARE HAULED OFF-SITE FOR DISPOSAL AS A NON-HAZARDOUS WASTE. CURRENTLY APPROXIMATELY 110 CUBIC YARDS PER MONTH IS GENERATED AND DISPOSED OF:

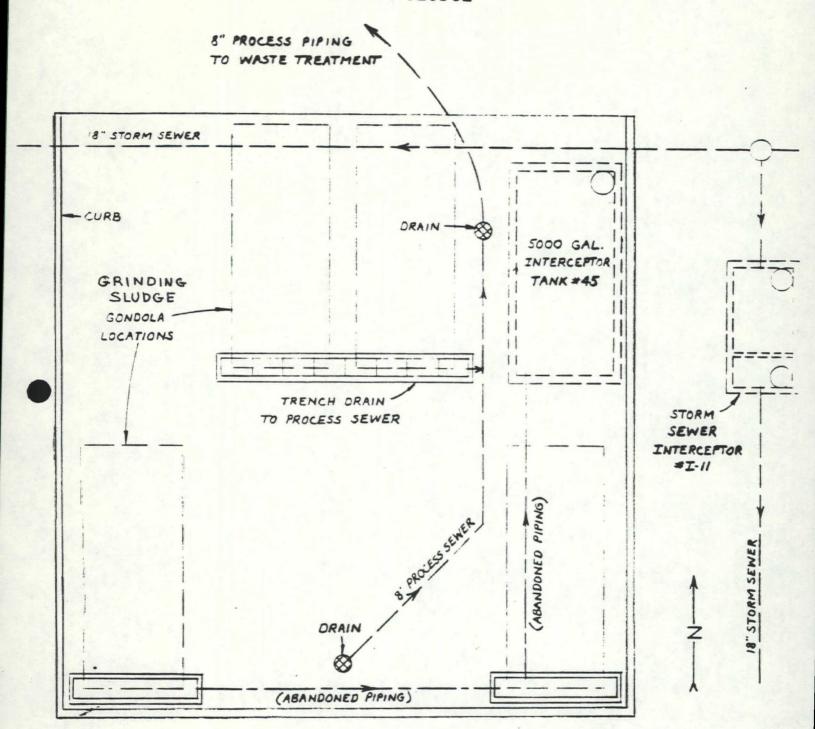
E.P.	TOXICITY MG/L	RESULTS
ARSENIC	, 4 2	< 0.003
BARIUM		0.050
CADMIUM		<0.001
MERCURY		<0.0001
LEAD		<0.001
HEX. CHROME		<0.001
SELENIUM		<0.002
SILVER		< 0.001

SEE FIGURE C1 FOR THE LAYOUT OF THE AREA.

#### FIGURE CI

### CONTAINER STORAGE AREA

#### GRINDING SLUDGE



NOTE: ALL AREAS OF PAD DRAIN TO PROCESS SEWER WHICH RUNS TO HARRISON WASTE TREATMENT PLANT; INTERCEPTOR TANK IS NOT CURRENTLY IN USE.

#### WASTE RECYCLING OPERATION

R1

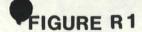
USED CUTTING OIL GENERATED FROM BROACHING, TAPPING, LATHES AND SCREW MACHINES IS COLLECTED IN A 5000 GALLON STEEL UNDERGROUND RECLAIM TANK.

THE USED OIL IS PUMPED FROM THE RECLAIM TANK INTO A 1200 GALLON ABOVE GROUND STEAM HEATED TANK. THE OIL IS HEATED FOR APPROXIMATELY 16 HOURS. THE HEATING LOWERS THE VISCOSITY WHICH ALLOWS WATER AND DEBRIS TO SETTLE IN THE BOTTOM OF THE HEATED TANK.

THE SETTLED WATER AND DEBRIS IS DRAINED FROM THE BOTTOM OF THE HEATED TANK AND IS PIPED TO THE HARRISON WASTEWATER TREATMENT UNIT FOR TREATMENT AND DISPOSAL.

THE REMAINING OIL IS FILTERED TO REMOVE ANY PARTICLES WHICH WERE NOT REMOVED IN THE HEATING PROCESS. THE FILTERED OIL IS THEN RETURNED TO A SERVICE TANK FOR RE-USE.

SEE FIGURE R1.



## WASTE RECYCLING OPERATION

### **USED CUTTING OIL**

